



Michael Gentile, Site Acquisition
c/o New Cingular Wireless, PCS LLC (AT&T)
Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767
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3/16/2017

Melanie A. Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

**RE: Notice of Exempt Modification // Site Number: CT2112
623-627 Honeyspot Road, Stratford, CT 06615 (Site Name: Stratford)
N 41.176875 // W 73.1460222**

Dear Ms. Bachman:

New Cingular Wireless, PCS, LLC (“AT&T”) currently maintains nine (9) antennas at the 90 foot level of the existing 102 foot monopole tower at 623-627 Honeyspot Road, Stratford, CT 06615. The tower is owned by John and/or Deborah Becker. The property is also owned by John and/or Deborah Becker. AT&T now intends to replace three (3) of its existing antennas with three (3) new for its LTE upgrade. These antennas would be installed at the 90 foot level of the tower. AT&T also intends to install three (3) remote radio units, one (1) surge arrestor, six (6) triplexers and three (3) remote radio unit modules.

The current proposal involves an antenna swap only (three for three); zero antennas will be added.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to John A. Harkins, Mayor for the Town of Stratford, as well as the tower owner and the ground owner, John and/or Deborah Becker.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2). AT&T was original approved for nine (9) antennas on 6/16/1999; AT&T was further approved for three (3) additional antennas that were never added on 7/18/2011 and approved for various radio units on 6/15/2015.

Attached to accommodate this filing are construction drawings dated 3/1/2015 by ComEx consultants, a structural analysis dated 3/9/2016 by ComEx Consultants and an Emissions Analysis Report dated 2/3/2016 by EBI Consulting.

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading as shown in the attached structural analysis by ComEx Consultants dated 3/9/2016.

For the foregoing reasons, AT&T respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,



Michael Gentile, Site Acquisition
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Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767
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mgentile@centerlincommunications.com

Attachments

cc: John A. Harkins, Mayor, Town of Stratford - as elected official
John and/or Deborah Becker - as tower owner
John and/or Deborah Becker - as property owner
Town of Stratford - Building Department
Town of Stratford - Planning & Zoning Departments

1) ANALYSIS CRITERIA

The analysis was performed for the existing and proposed appurtenances as specified in the RFDS and/or Construction Drawings, which are included in the Appendix, and per the following loading criteria of Table 1.

Table 1 – Loading and Analysis Criteria

Rad Center	90 ft.
Structure Type	Monopole
Exposure Category	C
Wind Speed	$V_{ASD} = 97$ mph
Ice Loading	0.75" with 50 mph wind (ASD)
Structure Classification	II
Topographic Factor	$K_{zt} = 1.0$

2) ANALYSIS PROCEDURE

The analysis is based on the following information:

Table 2 - Documents

Document	Prepared By	Date
Construction Drawings	Com-Ex Consultants	12/14/2016
RFDS	AT&T	11/30/2016
Mount Mapping Report	A3 Tower	12/21/2016

2.1) Analysis Method

Risa-3D, a commercially available analysis software package, was used to create a three-dimensional model of the mount and calculate member stresses for various loading cases. Selected output from the analysis is included in the Appendix.

2.2) Analysis Conditions and Assumptions

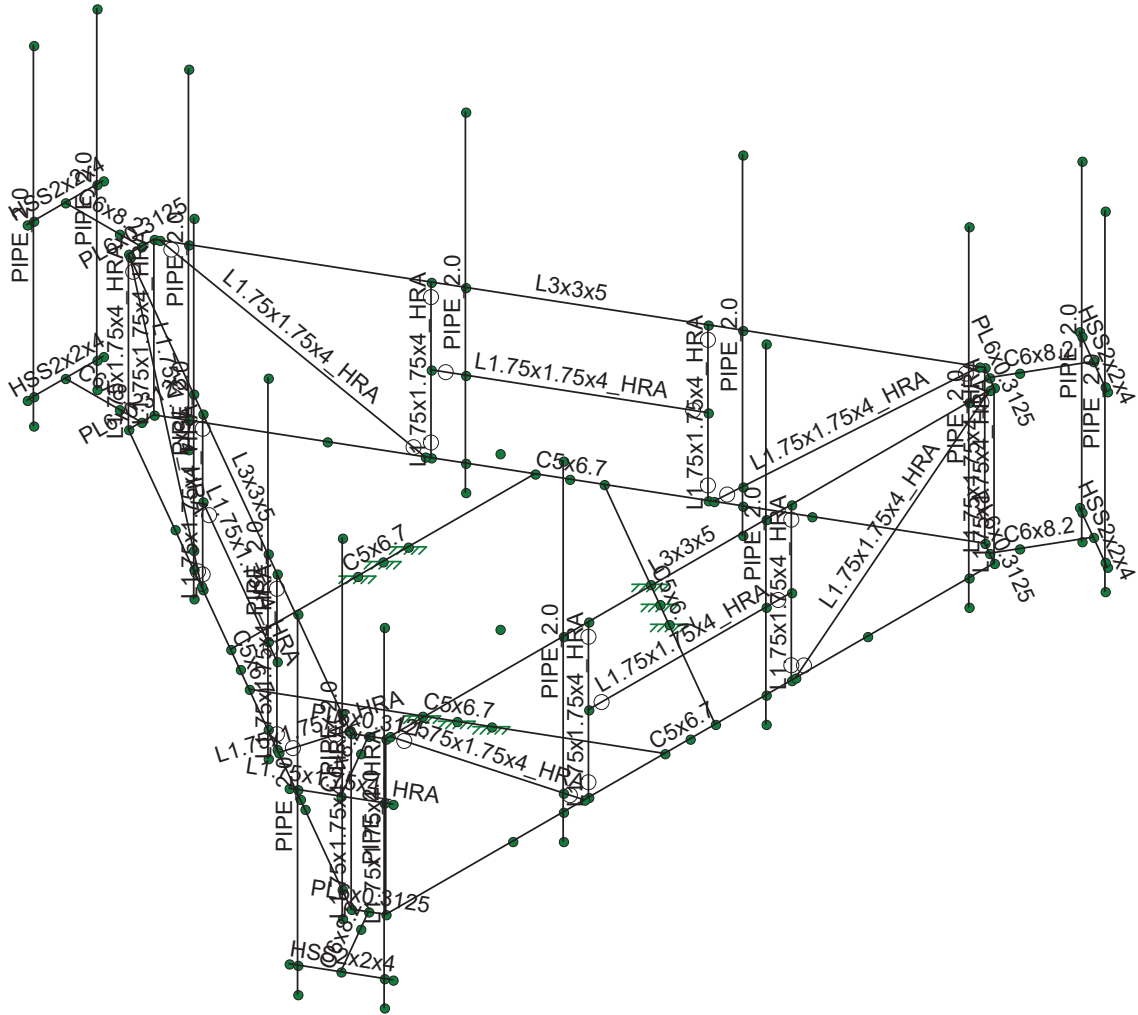
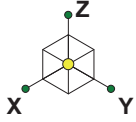
- 1) The mount was built and installed in accordance with the manufacturer's specifications.
- 2) The mount has been maintained and will be maintained in accordance with the manufacturer's specifications. All structural members and connections of the mount are in good condition and can achieve theoretical strength.
- 3) The configuration of antennas is as specified in "1) Analysis Criteria".
- 4) The analysis was performed for the subject mount only. It does not include an evaluation of the other mounts or the tower, which should be analyzed by others.
- 5) The evaluation does not include any antenna rigging loads. Equipment should not be rigged using the subject antenna mount as the support.
- 6) The analysis includes a 250 lbf point load for sector frames and 500 lbf point load for platforms to represent live loads.
- 7) Member sizes per the referenced mount mapping report as provided.

Destek Engineering, LLC must be notified immediately if any of these assumptions are discovered to be incorrect. The results of this analysis may be affected if any of the assumptions are not valid or have been made in error.

3) ANALYSIS RESULTS AND CONCLUSION

Platform Mounts: The existing platform mounts is found to have **adequate** capacity for the proposed changes by AT&T. For the code specified load combinations and as a maximum, the mount members will be stressed to **97.3%** of its structural capacity.

APPENDIX
CALCULATIONS,
RFDS & CDs

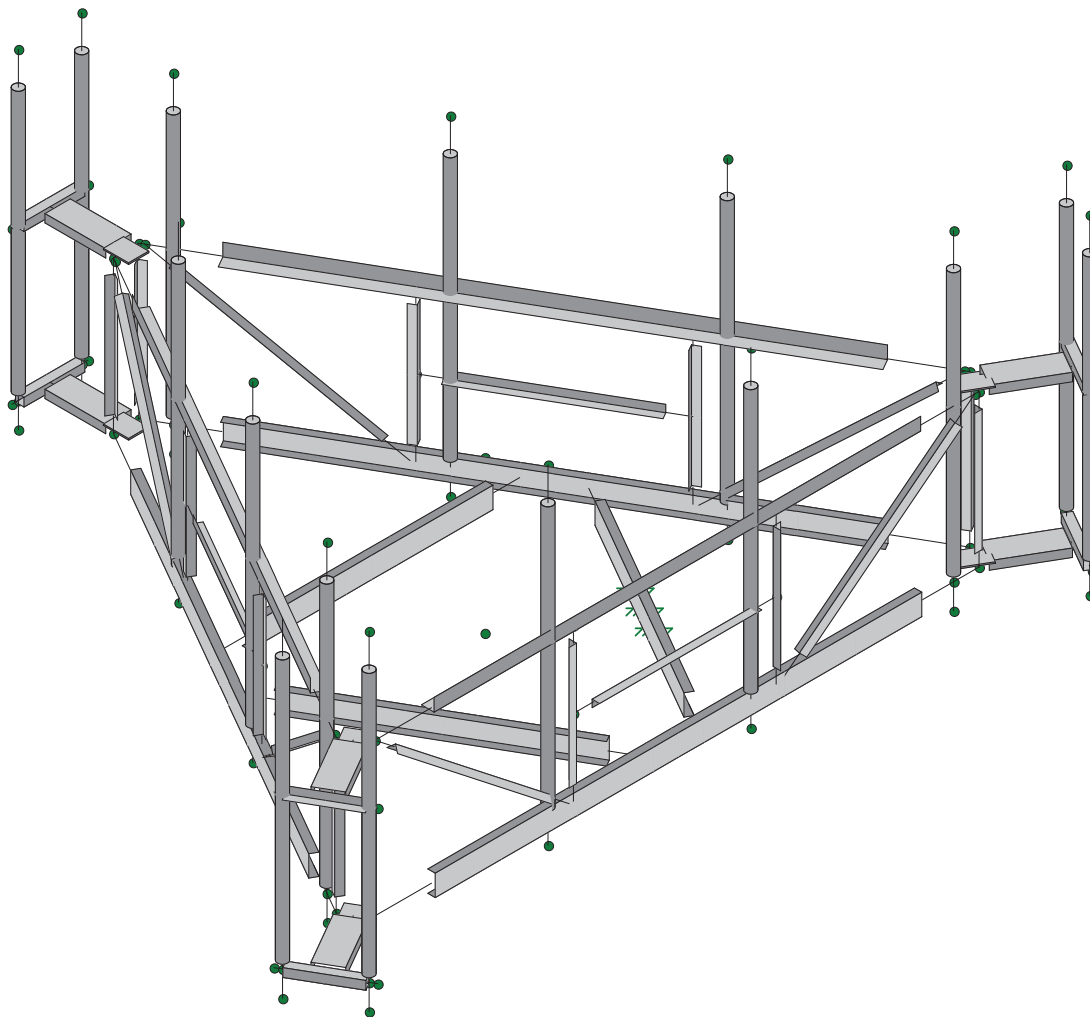
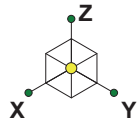


Envelope Only Solution

SK - 1

Mar 9, 2017 at 9:39 AM

CT2112_G Code.r3d

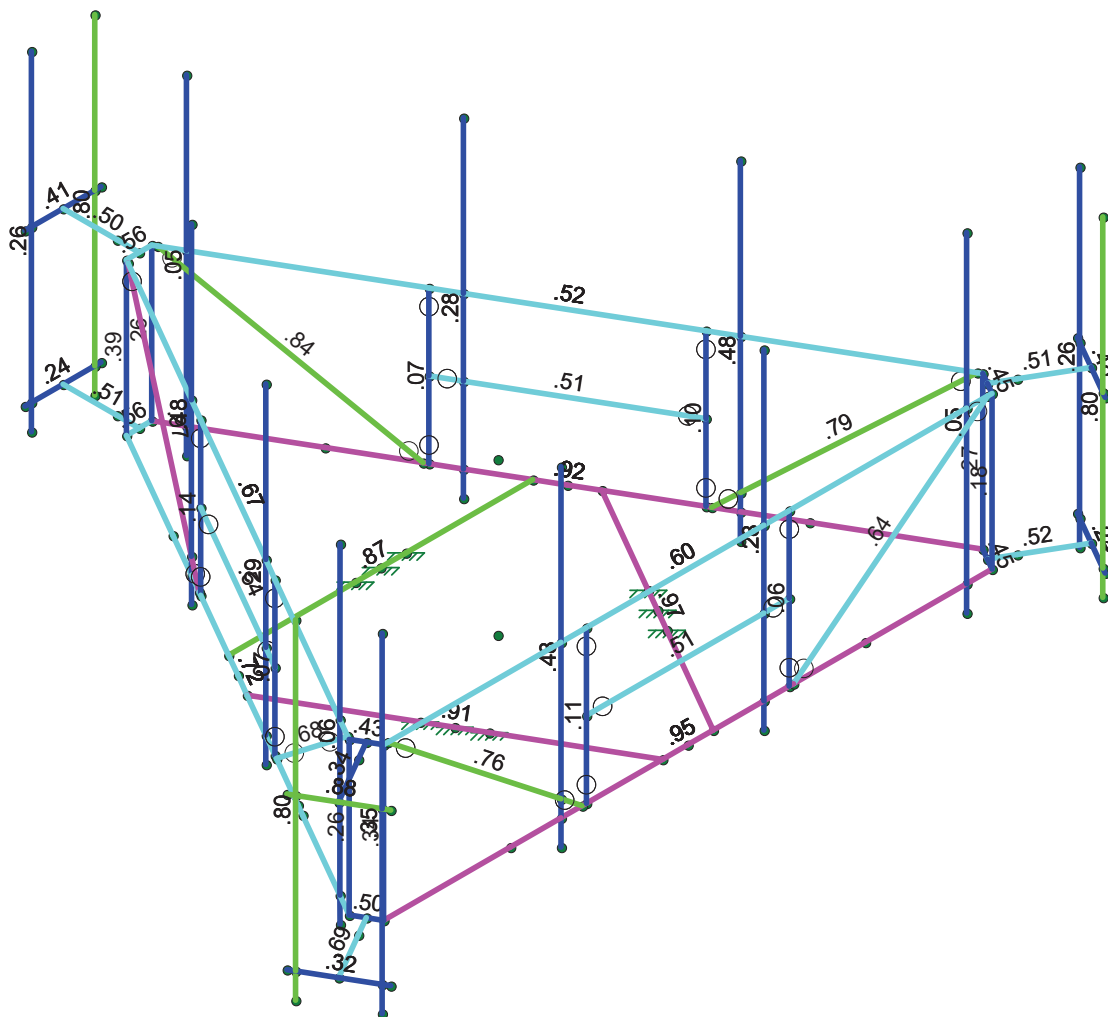
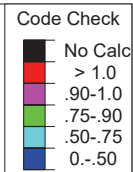
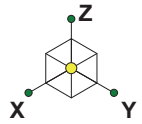


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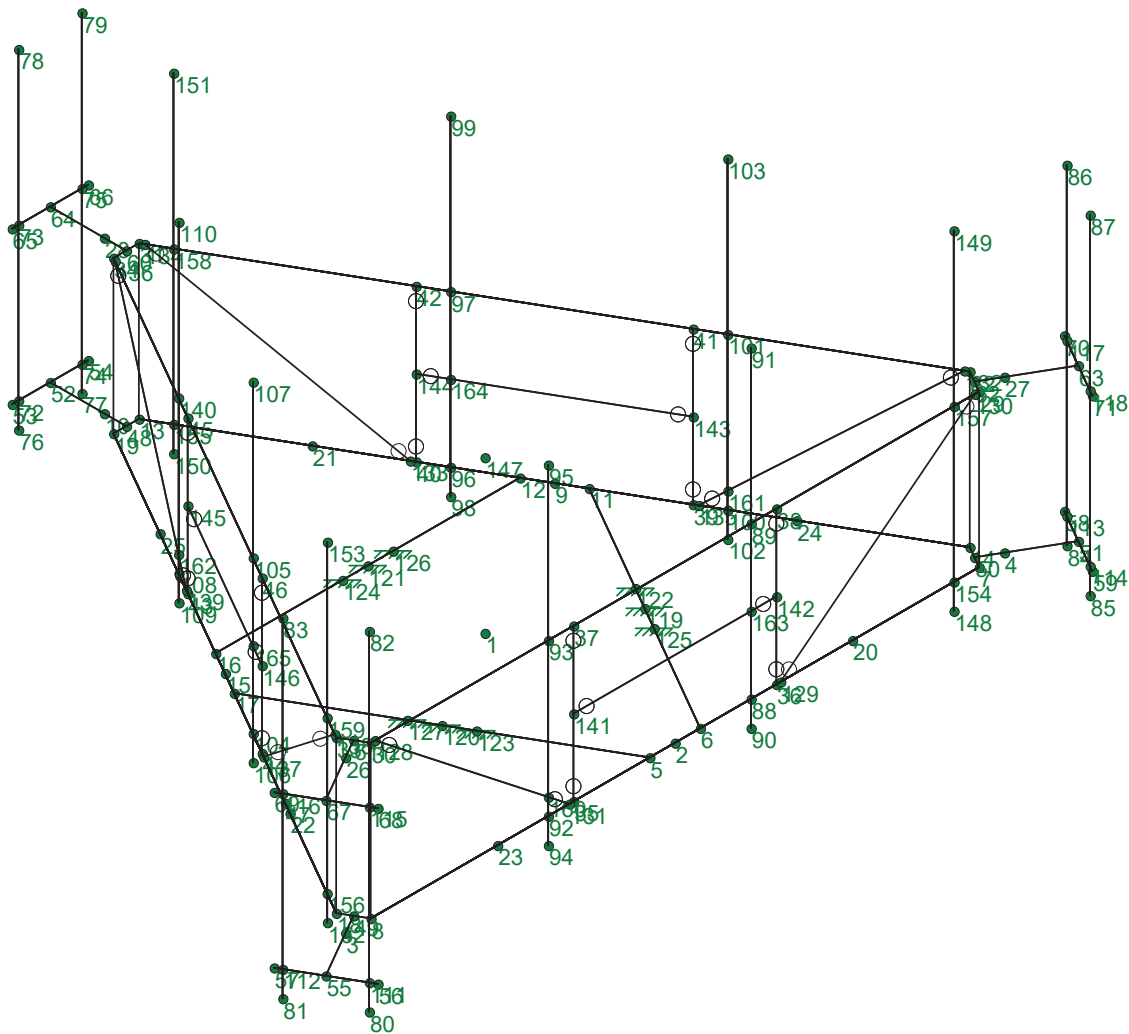
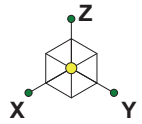
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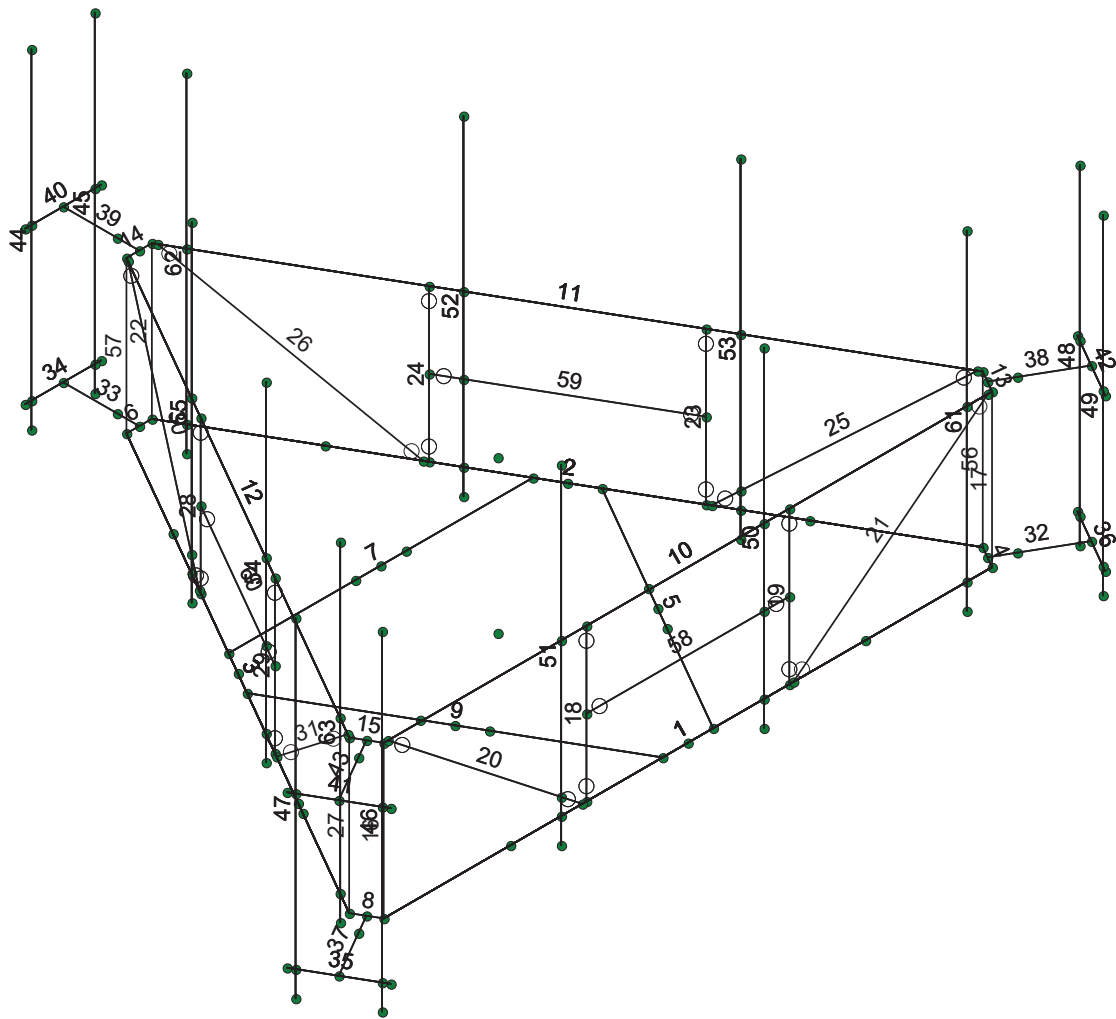
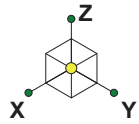


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Company :
 Designer :
 Job Number :
 Model Name :

Mar 9, 2017

Checked By: _____

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]	Footing
1	122	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction	
2	119	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction	
3	125	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction	
4	123	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction	
5	120	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction	
6	127	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction	
7	126	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction	
8	124	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction	
9	121	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction	

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torq...	Kyy	Kzz	Cb	Function
1	1	C5x6.7	144	40	40	40	40					Lateral
2	2	C5x6.7	143.971	40	40	40	40					Lateral
3	3	C5x6.7	143.952	40	40	40	40					Lateral
4	4	PL6x0.3125	5.998									Lateral
5	5	C5x6.7	71.973	30	30	30	30					Lateral
6	6	PL6x0.3125	5.999									Lateral
7	7	C5x6.7	72.018	30	30	30	30					Lateral
8	8	PL6x0.3125	5.984	3	3							Lateral
9	9	C5x6.7	71.99	30	30	30	30					Lateral
10	10	L3x3x5	144									Lateral
11	11	L3x3x5	143.971									Lateral
12	12	L3x3x5	143.952									Lateral
13	13	PL6x0.3125	5.998									Lateral
14	14	PL6x0.3125	5.999									Lateral
15	15	PL6x0.3125	5.984	3	3							Lateral
16	16	L1.75x1.75x...	36									Lateral
17	17	L1.75x1.75x...	36									Lateral
18	18	L1.75x1.75x...	36									Lateral
19	19	L1.75x1.75x...	36									Lateral
20	20	L1.75x1.75x...	58.412									Lateral
21	21	L1.75x1.75x...	58.412									Lateral
22	22	L1.75x1.75x...	36									Lateral
23	23	L1.75x1.75x...	36									Lateral
24	24	L1.75x1.75x...	36									Lateral
25	25	L1.75x1.75x...	58.419									Lateral
26	26	L1.75x1.75x...	58.419									Lateral
27	27	L1.75x1.75x...	36									Lateral
28	28	L1.75x1.75x...	36									Lateral
29	29	L1.75x1.75x...	36									Lateral
30	30	L1.75x1.75x...	58.411									Lateral
31	31	L1.75x1.75x...	58.411									Lateral
32	32	C6x8.2	18									Lateral
33	33	C6x8.2	18									Lateral
34	34	HSS2x2x4	18									Lateral
35	35	HSS2x2x4	18									Lateral
36	36	HSS2x2x4	18									Lateral
37	37	C6x8.2	18									Lateral
38	38	C6x8.2	18									Lateral
39	39	C6x8.2	18									Lateral
40	40	HSS2x2x4	18									Lateral
41	41	L1.75x1.75x...	18									Lateral
42	42	HSS2x2x4	18									Lateral

Hot Rolled Steel Design Parameters (Continued)

Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torg...	Kyy	Kzz	Cb	Function
43	43	C6x8.2	18								Lateral
44	44	PIPE 2.0	78								Lateral
45	45	PIPE 2.0	78								Lateral
46	46	PIPE 2.0	78								Lateral
47	47	PIPE 2.0	78								Lateral
48	48	PIPE 2.0	78								Lateral
49	49	PIPE 2.0	78								Lateral
50	50	PIPE 2.0	78								Lateral
51	51	PIPE 2.0	78								Lateral
52	52	PIPE 2.0	78								Lateral
53	53	PIPE 2.0	78								Lateral
54	54	PIPE 2.0	78								Lateral
55	55	PIPE 2.0	78								Lateral
56	56	L1.75x1.75x...	36								Lateral
57	57	L1.75x1.75x...	36								Lateral
58	58	L1.75x1.75x...	48								Lateral
59	59	L1.75x1.75x...	48.009								Lateral
60	60	L1.75x1.75x...	47.998								Lateral
61	61	PIPE 2.0	78								Lateral
62	62	PIPE 2.0	78								Lateral
63	63	PIPE 2.0	78								Lateral

Envelope AISC 14th(360-10): LRFD Steel Code Checks

Memb...	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]...	LC	phi*Pnc [lb]	phi*Pnt [l...	phi*Mn y-...	phi*Mn ...	Eqn	
1	5	C5x6.7	.973	29.989	2	.165	29.9...y	2	51788.584	63828	1.604	9.365	1 H1-...
2	30	L1.75x1.7...	.970	52.326	7	.063	58.4...y	2	6259.721	26341.2	.512	1.104	H2-1
3	1	C5x6.7	.951	78	2	.277	81 y	1	44841.687	63828	1.604	8.972	1 H1-...
4	2	C5x6.7	.915	65.987	1	.311	77.9...y	2	44841.687	63828	1.604	8.972	1 H1-...
5	9	C5x6.7	.908	42.744	7	.156	29.9...y	6	51787.759	63828	1.604	9.365	1 H1-...
6	41	L1.75x1.7...	.884	9.188	7	.450	9.188 y	2	22747.34	26341.2	.512	1.176	H2-1
7	7	C5x6.7	.870	42.01	2	.145	29.2...y	9	51786.387	63828	1.604	9.365	1 H1-...
8	26	L1.75x1.7...	.841	29.818	2	.012	0 y	7	6257.926	26341.2	.512	1.085	H2-1
9	47	PIPE 2.0	.804	35.75	2	.131	36.5...y	7	19360.206	32130	1.872	1.872	H1-...
10	49	PIPE 2.0	.803	35.75	6	.090	36.5...y	6	19360.206	32130	1.872	1.872	H1-...
11	45	PIPE 2.0	.802	35.75	2	.091	36.5...y	2	19360.206	32130	1.872	1.872	H1-...
12	25	L1.75x1.7...	.794	52.334	1	.052	58.4...y	7	6257.926	26341.2	.512	1.119	H2-1
13	20	L1.75x1.7...	.758	52.328	6	.068	58.4...y	1	6259.363	26341.2	.512	1.129	H2-1
14	3	C5x6.7	.717	67.477	7	.221	77.9...y	1	44841.687	63828	1.604	8.972	1 H1-...
15	37	C6x8.2	.686	18	9	.118	9 z	1	72974.704	77436	2.108	13.932	H1-...
16	31	L1.75x1.7...	.676	30.422	1	.009	0 y	2	6259.721	26341.2	.512	1.085	H2-1
17	12	L3x3x5	.666	0	7	.242	0 z	7	6595.737	57672	2.015	3.695	H2-1
18	21	L1.75x1.7...	.644	29.206	6	.012	0 y	1	6259.363	26341.2	.512	1.085	H2-1
19	10	L3x3x5	.604	0	6	.202	0 z	6	6591.314	57672	2.015	3.751	H2-1
20	14	PL6x0.3125	.564	5.999	2	.546	0 y	4	48131.068	60750	.396	7.594	H1-...
21	6	PL6x0.3125	.558	5.999	2	.560	0 y	3	48131.068	60750	.396	7.594	H1-...
22	60	L1.75x1.7...	.544	41.998	1	.069	41.9...z	1	9270.363	26341.2	.512	1.176	H2-1
23	11	L3x3x5	.522	143.971	2	.177	143...z	2	6593.955	57672	2.015	3.898	H2-1
24	32	C6x8.2	.517	18	8	.127	9 z	6	72974.715	77436	2.108	13.932	H1-...
25	38	C6x8.2	.515	18	9	.110	9 y	6	72974.715	77436	2.108	13.932	H1-...
26	33	C6x8.2	.508	18	4	.161	9 z	2	72974.715	77436	2.108	13.932	H1-...
27	59	L1.75x1.7...	.508	42.508	2	.082	42.5...z	2	9266.077	26341.2	.512	1.176	H2-1
28	58	L1.75x1.7...	.507	42	7	.077	42 z	7	9269.508	26341.2	.512	1.176	H2-1
29	39	C6x8.2	.501	18	4	.153	9 z	2	72974.715	77436	2.108	13.932	H1-...
30	8	PL6x0.3125	.495	0	6	.937	0 y	4	57314.093	60750	.396	7.378	1 H1-...
31	42	HSS2x2x4	.483	16.5	1	.302	9 z	1	47265.902	48924	2.603	2.603	H3-6



Company :
 Designer :
 Job Number :
 Model Name :

Mar 9, 2017

Checked By: _____

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

Memb...	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]...	LC	phi*Pnc [lb]	phi*Pnt [l...	phi*Mn y...	phi*Mn ...	Egn	
32	51	PIPE 2.0	.476	35.75	6	.162	68.25	1	19360.206	32130	1.872	1.872	H1...
33	55	PIPE 2.0	.476	35.75	7	.165	68.25	2	19360.206	32130	1.872	1.872	H1...
34	53	PIPE 2.0	.476	35.75	2	.125	36.5...	7	19360.206	32130	1.872	1.872	H1...
35	4	PL6x0.3125	.449	5.998	6	.568	0	y 4	48137.295	60750	.396	7.594	H1...
36	13	PL6x0.3125	.446	5.998	6	.533	0	y 8	48137.295	60750	.396	7.594	H1...
37	15	PL6x0.3125	.432	5.984	1	.788	0	y 3	57314.093	60750	.396	7.594	H1...
38	40	HSS2x2x4	.407	16.5	7	.294	9.188	y 6	47265.902	48924	2.603	2.603	H1...
39	57	L1.75x1.7...	.391	36	2	.029	36	z 7	14649.265	26341.2	.512	1.176	H2-1
40	46	PIPE 2.0	.354	71.5	4	.066	36.5...	6	19360.206	32130	1.872	1.872	H1...
41	16	L1.75x1.7...	.338	36	1	.029	36	z 1	14649.265	26341.2	.512	1.176	H2-1
42	43	C6x8.2	.335	0	1	.088	9	y 1	72974.704	77436	2.108	13.932	H1...
43	35	HSS2x2x4	.321	9.188	8	.377	9.188	z 9	47265.902	48924	2.603	2.603	H3-6
44	54	PIPE 2.0	.291	71.5	1	.137	53.6...	2	19360.206	32130	1.872	1.872	H1...
45	52	PIPE 2.0	.281	71.5	2	.131	71.5	2	19360.206	32130	1.872	1.872	H1...
46	50	PIPE 2.0	.277	71.5	7	.142	36.5...	6	19360.206	32130	1.872	1.872	H1...
47	56	L1.75x1.7...	.272	36	6	.022	36	z 1	14649.265	26341.2	.512	1.176	H2-1
48	48	PIPE 2.0	.264	36.563	4	.075	36.5...	2	19360.206	32130	1.872	1.872	H1...
49	22	L1.75x1.7...	.263	36	7	.031	36	z 7	14649.265	26341.2	.512	1.176	H2-1
50	44	PIPE 2.0	.258	36.563	3	.083	36.5...	7	19360.206	32130	1.872	1.872	H1...
51	27	L1.75x1.7...	.258	0	6	.029	36	z 6	14649.265	26341.2	.512	1.176	H2-1
52	34	HSS2x2x4	.242	16.5	2	.269	9.188	z 3	47265.902	48924	2.603	2.603	H1...
53	36	HSS2x2x4	.239	9	4	.265	9	z 8	47265.902	48924	2.603	2.603	H3-6
54	17	L1.75x1.7...	.178	0	2	.024	36	z 1	14649.265	26341.2	.512	1.176	H2-1
55	28	L1.75x1.7...	.139	18	7	.020	36	z 2	14649.265	26341.2	.512	1.176	H2-1
56	18	L1.75x1.7...	.110	18	6	.023	36	z 1	14649.265	26341.2	.512	1.176	H2-1
57	23	L1.75x1.7...	.096	18	1	.021	0	z 7	14649.265	26341.2	.512	1.176	H2-1
58	24	L1.75x1.7...	.074	18	7	.022	18	z 7	14649.265	26341.2	.512	1.176	H2-1
59	29	L1.75x1.7...	.067	18	6	.023	18	z 7	14649.265	26341.2	.512	1.176	H2-1
60	19	L1.75x1.7...	.060	18	7	.028	18	z 1	14649.265	26341.2	.512	1.176	H2-1
61	63	PIPE 2.0	.057	36.563	7	.097	36.5...	6	19360.206	32130	1.872	1.872	H1...
62	61	PIPE 2.0	.054	36.563	6	.099	36.5...	1	19360.206	32130	1.872	1.872	H1...
63	62	PIPE 2.0	.048	36.563	1	.112	36.5...	7	19360.206	32130	1.872	1.872	H1...

Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diaphra...
1	1	0	0	0	0	
2	2	0	45	0	0	
3	3	77.983386	45	0	0	
4	4	-78	45	0	0	
5	5	6	45	0	0	
6	6	-6	45	0	0	
7	7	-72	45	0	0	
8	8	72	45	0	0	
9	9	-38.971143	-22.5	0	0	
10	10	0.027747	-90.04806	0	0	
11	11	-41.986681	-17.330761	0	0	
12	12	-35.99779	-27.696152	0	0	
13	13	-2.973364	-84.853829	0	0	
14	14	-74.99889	39.80577	0	0	
15	15	38.971143	-22.5	0	0	
16	16	36.019991	-27.696152	0	0	
17	17	41.995015	-17.345196	0	0	
18	18	74.991969	39.817758	0	0	
19	19	3.026083	-84.853829	0	0	
20	20	-42	45	0	0	



Company :
 Designer :
 Job Number :
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Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diaphra...
21	21	-17.984467	-58.873067	0	0	
22	22	59.993354	13.834597	0	0	
23	23	42	45	0	0	
24	24	-59.993341	13.83462	0	0	
25	25	18.023314	-58.873067	0	0	
26	26	77.983386	45	36	0	
27	27	-78	45	36	0	
28	28	0.027747	-90.04806	36	0	
29	29	-72	45	36	0	
30	30	72	45	36	0	
31	31	-2.973364	-84.853829	36	0	
32	32	-74.99889	39.80577	36	0	
33	33	74.991969	39.817758	36	0	
34	34	3.026083	-84.853829	36	0	
35	35	24	45	0	0	
36	36	-24	45	0	0	
37	37	24	45	36	0	
38	38	-24	45	36	0	
39	39	-51.008893	-1.71539	0	0	
40	40	-26.991128	-43.28461	0	0	
41	41	-51.008893	-1.71539	36	0	
42	42	-26.991128	-43.28461	36	0	
43	43	27.021653	-43.28461	0	0	
44	44	51.017222	-1.71539	0	0	
45	45	27.021653	-43.28461	36	0	
46	46	51.017222	-1.71539	36	0	
47	47	58.507214	11.237505	0	0	
48	48	0.027747	-84.853829	0	0	
49	49	73.5	42.401924	0	0	
50	50	-73.499445	42.402885	0	0	
51	51	-89.089824	51.399555	0	0	
52	52	0.027747	-102.853829	0	0	
53	53	9.031593	-102.853829	0	0	
54	54	-8.968407	-102.853829	0	0	
55	55	89.074029	51.426914	0	0	
56	56	84.558232	59.248503	0	0	
57	57	93.558232	43.660046	0	0	
58	58	-93.589825	43.605326	0	0	
59	59	-84.589825	59.193783	0	0	
60	60	0.027747	-84.853829	36	0	
61	61	73.5	42.401924	36	0	
62	62	-73.499445	42.402885	36	0	
63	63	-89.089824	51.399555	36	0	
64	64	0.027747	-102.853829	36	0	
65	65	9.031593	-102.853829	36	0	
66	66	-8.968407	-102.853829	36	0	
67	67	89.074029	51.426914	36	0	
68	68	84.558232	59.248503	36	0	
69	69	93.558232	43.660046	36	0	
70	70	-93.589825	43.605326	36	0	
71	71	-84.589825	59.193783	36	0	
72	72	7.527747	-102.853829	0	0	
73	73	7.527747	-102.853829	36	0	
74	74	-7.472253	-102.853829	0	0	
75	75	-7.472253	-102.853829	36	0	
76	76	7.527747	-102.853829	-6	0	
77	77	-7.472253	-102.853829	-6	0	



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Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diaphra...
78	78	7.527747	-102.853829	72	0	
79	79	-7.472253	-102.853829	72	0	
80	80	85.310155	57.946134	-6	0	
81	81	92.810155	44.955753	-6	0	
82	82	85.310155	57.946134	72	0	
83	83	92.810155	44.955753	72	0	
84	84	-92.837902	44.907695	-6	0	
85	85	-85.337902	57.898076	-6	0	
86	86	-92.837902	44.907695	72	0	
87	87	-85.337902	57.898076	72	0	
88	88	-18	45	0	0	
89	89	-18	45	36	0	
90	90	-18	45	-6	0	
91	91	-18	45	72	0	
92	92	30	45	0	0	
93	93	30	45	36	0	
94	94	30	45	-6	0	
95	95	30	45	72	0	
96	96	-29.971143	-38.088457	0	0	
97	97	-29.971143	-38.088457	36	0	
98	98	-29.971143	-38.088457	-6	0	
99	99	-29.971143	-38.088457	72	0	
100	100	-53.971143	3.480762	0	0	
101	101	-53.971143	3.480762	36	0	
102	102	-53.971143	3.480762	-6	0	
103	103	-53.971143	3.480762	72	0	
104	104	47.971143	-6.911543	0	0	
105	105	47.971143	-6.911543	36	0	
106	106	47.971143	-6.911543	-6	0	
107	107	47.971143	-6.911543	72	0	
108	108	23.971143	-48.480762	0	0	
109	109	23.971143	-48.480762	-6	0	
110	110	23.971143	-48.480762	72	0	
111	111	85.310155	57.946134	0	0	
112	112	92.810155	44.955753	0	0	
113	113	-92.837902	44.907695	0	0	
114	114	-85.337902	57.898076	0	0	
115	115	85.310155	57.946134	36	0	
116	116	92.810155	44.955753	36	0	
117	117	-92.837902	44.907695	36	0	
118	118	-85.337902	57.898076	36	0	
119	119	-23.986681	13.846154	0	0	
120	120	24	13.823085	0	0	
121	121	0.019991	-27.696152	0	0	
122	122	-26.986681	8.650001	0	0	
123	123	21	19.019238	0	0	
124	124	6.019991	-27.696152	0	0	
125	125	-20.986681	19.042306	0	0	
126	126	-5.980009	-27.696152	0	0	
127	127	27	8.626933	0	0	
128	128	71	45	36	0	
129	129	-25	45	0	0	
130	130	-71	45	36	0	
131	131	25	45	0	0	
132	132	-74.526288	38.987804	36	0	
133	133	-26.490758	-44.150635	0	0	
134	134	-3.473734	-83.987804	36	0	



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Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diaphra...
135	135	-51.509263	-0.849365	0	0	
136	136	3.525991	-83.987804	36	0	
137	137	51.517129	-0.849365	0	0	
138	138	74.512883	38.987804	36	0	
139	139	26.521745	-44.150635	0	0	
140	140	24.022206	-48.480762	36	0	
141	141	24	45	18	0	
142	142	-24	45	18	0	
143	143	-51.008893	-1.71539	18	0	
144	144	-26.991128	-43.28461	18	0	
145	145	27.021653	-43.28461	18	0	
146	146	51.017222	-1.71539	18	0	
147	147	0	0	36	0	
148	148	-66	45	-6	0	
149	149	-66	45	72	0	
150	150	-5.971143	-79.657677	-6	0	
151	151	-5.971143	-79.657677	72	0	
152	152	71.971143	34.657677	-6	0	
153	153	71.971143	34.657677	72	0	
154	154	-66	45	0	0	
155	155	-5.975584	-79.657677	0	0	
156	156	72.013345	34.657677	0	0	
157	157	-66	45	36	0	
158	158	-5.975584	-79.657677	36	0	
159	159	72.013345	34.657677	36	0	
160	160	30	45	3.913043	0	
161	161	-54.011114	3.480762	3.913043	0	
162	162	24.022206	-48.480762	3.913043	0	
163	163	-18	45	18	0	
164	164	-29.971143	-38.088457	18	0	
165	165	47.971143	-6.911543	18	0	

Envelope Joint Displacements

	Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation...	LC	Y Rotation...	LC	Z Rotation...	LC
1	1	max	0	1	0	1	0	1	0	1	0	1	0	1
2	1	min	0	1	0	1	0	1	0	1	0	1	0	1
3	2	max	.077	7	.002	1	.056	1	3.345e-3	1	1.779e-3	7	8.223e-3	7
4	2	min	-.078	2	-.002	6	-.117	6	-6.979e-3	6	-1.683e-3	2	-8.29e-3	2
5	3	max	.077	7	.082	6	.194	2	-9.502e-4	2	1.525e-2	9	1.063e-3	7
6	3	min	-.079	2	-.081	1	-.348	7	-8.193e-3	9	3.243e-3	2	-3.126e-4	2
7	4	max	.078	7	.082	6	.225	7	9.411e-4	7	1.892e-3	7	8.932e-4	8
8	4	min	-.078	2	-.085	1	-.354	2	-5.81e-3	4	-9.403e-3	4	3.116e-5	2
9	5	max	.077	7	.042	7	.058	1	3.451e-3	1	2.041e-3	7	3.919e-3	7
10	5	min	-.078	2	-.043	2	-.121	6	-7.173e-3	6	-1.524e-3	2	-4.034e-3	2
11	6	max	.077	7	.043	2	.056	1	3.24e-3	1	1.719e-3	7	3.958e-3	7
12	6	min	-.078	2	-.042	7	-.118	6	-6.785e-3	6	-2.039e-3	2	-3.979e-3	2
13	7	max	.078	7	.085	6	.215	7	3.495e-3	1	4.696e-3	7	8.638e-4	8
14	7	min	-.078	2	-.084	1	-.307	2	-3.688e-3	6	-5.026e-3	2	1.439e-5	2
15	8	max	.077	7	.076	6	.213	2	2.545e-3	1	4.815e-3	7	9.957e-4	7
16	8	min	-.079	2	-.079	1	-.302	7	-3.262e-3	6	-4.804e-3	2	-2.925e-4	2
17	9	max	.036	1	.059	6	.053	7	3.166e-3	1	3.145e-3	7	7.375e-3	6
18	9	min	-.035	6	-.06	1	-.116	2	-1.428e-3	6	-6.404e-3	2	-7.457e-3	1
19	10	max	.111	7	.08	6	.233	6	1.118e-2	3	3.947e-6	7	1.506e-3	7
20	10	min	-.109	2	-.079	1	-.361	1	-2.266e-3	6	-4.154e-4	4	-8.869e-4	2
21	11	max	.068	1	.041	6	.059	7	2.39e-3	3	3.967e-3	7	3.494e-3	2



Company :
 Designer :
 Job Number :
 Model Name :

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Checked By: _____

Envelope Joint Displacements (Continued)

Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation...	LC	Y Rotation...	LC	Z Rotation...	LC	
22		min	-0.067	6	-0.041	1	-.123	2	-8.933e-4	7	-7.561e-3	2	-3.573e-3	7
23	12	max	.002	1	.079	6	.05	7	4.218e-3	1	2.381e-3	7	3.9e-3	6
24		min	-.002	6	-.079	1	-.112	2	-2.178e-3	6	-5.308e-3	2	-3.941e-3	1
25	13	max	.103	7	.081	6	.222	6	4.806e-3	1	3.764e-3	7	1.437e-3	7
26		min	-.104	2	-.082	1	-.312	1	-4.431e-3	6	-3.795e-3	2	-8.5e-4	2
27	14	max	.082	7	.084	6	.21	7	3.967e-3	1	3.76e-3	7	8.241e-4	8
28		min	-.078	2	-.084	1	-.302	2	-3.609e-3	6	-4.27e-3	2	-3.896e-5	2
29	15	max	.035	6	.059	6	.053	2	3.465e-3	3	6.116e-3	7	7.276e-3	1
30		min	-.035	1	-.058	1	-.114	7	-1.469e-3	6	-3.041e-3	2	-7.314e-3	6
31	16	max	.002	6	.078	6	.051	2	4.53e-3	1	5.374e-3	7	3.785e-3	1
32		min	-.002	1	-.077	1	-.114	7	-2.15e-3	6	-2.406e-3	2	-3.864e-3	6
33	17	max	.067	6	.04	6	.057	2	2.632e-3	3	6.911e-3	7	3.298e-3	2
34		min	-.066	1	-.04	1	-.119	7	-9.662e-4	2	-3.735e-3	2	-3.353e-3	7
35	18	max	.083	7	.078	6	.209	2	3.764e-3	1	4.879e-3	7	1.088e-3	7
36		min	-.081	2	-.08	1	-.298	7	-3.924e-3	6	-4.343e-3	2	-3.771e-4	2
37	19	max	.103	7	.079	6	.22	6	4.5e-3	1	3.658e-3	7	1.47e-3	7
38		min	-.104	2	-.076	1	-.311	1	-4.23e-3	6	-3.113e-3	2	-8.94e-4	2
39	20	max	.078	7	.073	6	.078	7	1.05e-2	1	4.076e-3	7	1.839e-3	1
40		min	-.078	2	-.068	1	-.162	2	-1.034e-2	6	-4.382e-3	2	-2.01e-3	6
41	21	max	.049	7	.097	6	.109	6	4.762e-3	1	1.013e-2	7	3.07e-3	7
42		min	-.052	2	-.1	1	-.192	1	-4.537e-3	6	-9.904e-3	2	-3.304e-3	2
43	22	max	.107	7	.052	6	.129	2	5.819e-3	1	8.694e-3	7	2.462e-3	6
44		min	-.101	2	-.055	1	-.211	7	-6.066e-3	6	-8.772e-3	2	-2.713e-3	1
45	23	max	.077	7	.053	6	.082	1	7.852e-3	1	4.304e-3	7	1.923e-3	2
46		min	-.079	2	-.062	1	-.171	6	-8.493e-3	6	-4.106e-3	2	-2.059e-3	7
47	24	max	.104	7	.055	6	.133	7	5.466e-3	1	6.104e-3	7	2.662e-3	1
48		min	-.097	2	-.053	1	-.225	2	-5.306e-3	6	-6.704e-3	2	-2.746e-3	6
49	25	max	.04	7	.092	6	.106	6	4.4e-3	1	8.534e-3	7	2.639e-3	7
50		min	-.047	2	-.088	1	-.197	1	-3.868e-3	6	-8.13e-3	2	-2.704e-3	2
51	26	max	.242	7	.233	6	.196	2	-7.367e-4	2	1.43e-2	8	4.068e-3	1
52		min	-.243	2	-.227	1	-.34	7	-7.368e-3	9	2.232e-3	1	-4.283e-3	6
53	27	max	.24	7	.228	6	.22	7	6.973e-4	7	1.289e-3	7	3.237e-3	6
54		min	-.245	2	-.232	1	-.35	2	-5.738e-3	4	-9.277e-3	4	-3.523e-3	1
55	28	max	.281	7	.229	6	.227	6	1.099e-2	3	-1.09e-4	10	3.037e-3	2
56		min	-.276	2	-.232	1	-.355	1	-1.46e-3	6	-3.715e-4	3	-3.241e-3	7
57	29	max	.239	7	.248	6	.216	7	3.593e-3	1	4.889e-3	7	3.71e-3	6
58		min	-.245	2	-.254	1	-.307	2	-3.807e-3	6	-5.444e-3	2	-3.969e-3	1
59	30	max	.241	7	.259	6	.214	2	1.301e-3	1	4.769e-3	7	4.661e-3	1
60		min	-.243	2	-.252	1	-.302	7	-2.365e-3	6	-4.162e-3	2	-4.819e-3	6
61	31	max	.298	7	.231	6	.222	6	5.232e-3	1	3.584e-3	7	3.61e-3	2
62		min	-.292	2	-.233	1	-.312	1	-4.646e-3	6	-3.533e-3	2	-3.791e-3	7
63	32	max	.255	7	.237	6	.21	7	3.165e-3	7	4.503e-3	7	3.584e-3	6
64		min	-.261	2	-.242	1	-.301	2	-3.461e-3	2	-5.114e-3	2	-3.822e-3	1
65	33	max	.26	7	.245	6	.209	2	3.887e-3	1	5.244e-3	7	4.365e-3	1
66		min	-.264	2	-.239	1	-.297	7	-4.003e-3	6	-4.123e-3	2	-4.545e-3	6
67	34	max	.298	7	.228	6	.22	6	5.494e-3	1	8.261e-4	6	3.725e-3	2
68		min	-.292	2	-.231	1	-.311	1	-4.804e-3	6	-7.954e-4	1	-3.875e-3	7
69	35	max	.077	7	.069	7	.074	1	8.631e-3	1	3.358e-3	7	1.666e-3	6
70		min	-.079	2	-.074	2	-.155	6	-9.949e-3	6	-2.577e-3	2	-1.924e-3	1
71	36	max	.078	7	.071	2	.067	1	1.438e-2	1	2.807e-3	7	2.171e-3	1
72		min	-.078	2	-.069	7	-.143	6	-1.431e-2	6	-3.439e-3	2	-2.337e-3	6
73	37	max	.241	7	.653	6	.075	1	2.406e-2	1	3.314e-3	7	3.869e-3	1
74		min	-.244	2	-.645	1	-.156	6	-2.436e-2	6	-2.797e-3	2	-3.453e-3	6
75	38	max	.24	7	.566	6	.067	1	1.533e-2	1	3.005e-3	7	5.555e-3	6
76		min	-.244	2	-.573	1	-.142	6	-1.508e-2	6	-3.555e-3	2	-5.638e-3	1
77	39	max	.1	7	.038	6	.091	7	4.422e-3	1	6.493e-3	7	1.389e-3	2
78		min	-.096	2	-.036	1	-.174	2	-4.414e-3	6	-8.021e-3	2	-1.624e-3	7

Envelope Joint Displacements (Continued)

	Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation...	LC	Y Rotation...	LC	Z Rotation...	LC
79	40	max	.032	6	.098	6	.054	6	6.786e-3	2	1.283e-2	7	1.964e-3	7
80		min	-.034	1	-.1	1	-.13	3	-6.274e-3	7	-1.252e-2	2	-2.081e-3	2
81	41	max	.532	7	.32	6	.091	7	7.566e-3	2	1.768e-2	7	3.889e-3	7
82		min	-.538	2	-.329	1	-.175	2	-7.927e-3	7	-1.821e-2	2	-3.492e-3	2
83	42	max	.522	7	.282	6	.055	6	6.901e-3	2	1.367e-2	7	3.993e-3	2
84		min	-.516	2	-.286	1	-.13	1	-6.552e-3	7	-1.325e-2	2	-4.095e-3	7
85	43	max	.029	1	.098	6	.053	6	5.245e-3	7	8.868e-3	7	1.61e-3	7
86		min	-.032	6	-.095	1	-.142	3	-3.875e-3	2	-8.141e-3	2	-1.851e-3	2
87	44	max	.09	7	.034	6	.088	2	5.786e-3	1	1.119e-2	7	1.588e-3	2
88		min	-.088	2	-.035	1	-.162	7	-6.225e-3	6	-1.103e-2	2	-1.791e-3	7
89	45	max	.589	7	.282	6	.052	6	1.103e-2	7	2.012e-2	7	2.848e-3	2
90		min	-.583	2	-.289	1	-.143	3	-1.044e-2	2	-2.02e-2	2	-2.433e-3	7
91	46	max	.499	7	.316	6	.088	2	6.168e-3	1	1.173e-2	7	4.829e-3	7
92		min	-.504	2	-.313	1	-.162	7	-6.617e-3	6	-1.176e-2	2	-4.903e-3	2
93	47	max	.106	7	.049	6	.122	2	5.86e-3	1	9.104e-3	7	2.402e-3	6
94		min	-.101	2	-.051	1	-.202	7	-6.123e-3	6	-9.152e-3	2	-2.673e-3	1
95	48	max	.103	7	.08	6	.221	6	1.063e-2	3	1.602e-3	2	1.47e-3	7
96		min	-.104	2	-.079	1	-.313	1	-2.469e-3	6	-1.787e-3	7	-8.738e-4	2
97	49	max	.08	7	.077	6	.21	2	-1.994e-4	2	1.433e-2	8	1.052e-3	7
98		min	-.08	2	-.08	1	-.301	7	-8.1e-3	9	2.418e-3	1	-3.282e-4	2
99	50	max	.08	7	.084	6	.213	7	1.833e-3	7	1.592e-3	7	8.642e-4	8
100		min	-.078	2	-.084	1	-.306	2	-5.508e-3	4	-8.942e-3	4	2.506e-6	2
101	51	max	.075	7	.077	6	.251	7	2.919e-3	1	3.062e-3	7	9.283e-4	8
102		min	-.079	2	-.086	1	-.457	2	-5.649e-3	6	-5.917e-3	2	3.226e-5	2
103	52	max	.13	7	.08	6	.261	6	6.34e-3	3	4.42e-3	7	1.464e-3	7
104		min	-.12	2	-.079	1	-.466	1	-2.269e-3	6	-5.353e-3	2	-8.36e-4	2
105	53	max	.13	7	.076	6	.266	6	4.791e-3	1	4.676e-3	7	1.205e-3	1
106		min	-.12	2	-.068	1	-.464	1	-2.882e-3	6	-5.163e-3	2	-4.306e-4	6
107	54	max	.13	7	.088	6	.257	6	3.608e-3	1	3.103e-3	7	1.257e-3	1
108		min	-.12	2	-.09	1	-.472	1	-1.872e-3	6	-4.041e-3	2	-1.005e-3	6
109	55	max	.07	7	.093	6	.155	2	8.2e-4	1	1.031e-2	9	1.107e-3	7
110		min	-.077	2	-.084	1	-.478	9	-4.56e-3	8	1.622e-3	2	-3.4e-4	2
111	56	max	.061	7	.089	6	.148	2	1.802e-3	1	6.641e-3	9	1.29e-3	7
112		min	-.075	2	-.084	1	-.468	9	-3.722e-3	6	-3.637e-4	2	-4.385e-4	2
113	57	max	.081	7	.098	6	.155	2	4.489e-4	1	6.604e-3	9	1.579e-3	7
114		min	-.083	2	-.085	1	-.497	9	-2.006e-3	8	1.623e-3	10	-1.042e-3	2
115	58	max	.082	7	.073	6	.273	7	3.279e-3	1	3.675e-3	7	1.279e-3	8
116		min	-.08	2	-.086	1	-.474	2	-4.671e-3	6	-5.108e-3	2	-2.868e-4	1
117	59	max	.071	7	.08	6	.231	7	2.163e-3	1	2.334e-3	7	1.002e-3	6
118		min	-.078	2	-.088	1	-.447	2	-3.854e-3	6	-3.413e-3	2	-7.618e-4	1
119	60	max	.298	7	.229	6	.22	6	1.045e-2	3	1.729e-3	2	3.431e-3	2
120		min	-.292	2	-.232	1	-.312	1	-1.484e-3	6	-1.902e-3	7	-3.611e-3	7
121	61	max	.251	7	.252	6	.212	2	2.547e-5	2	1.302e-2	8	4.348e-3	1
122		min	-.253	2	-.246	1	-.3	7	-7.114e-3	9	1.141e-3	1	-4.535e-3	6
123	62	max	.247	7	.243	6	.213	7	1.5e-3	7	9.018e-4	7	3.494e-3	6
124		min	-.253	2	-.248	1	-.306	2	-5.427e-3	4	-8.835e-3	4	-3.757e-3	1
125	63	max	.224	7	.195	6	.256	7	3.451e-3	1	5.468e-3	7	2.993e-3	6
126		min	-.229	2	-.196	1	-.462	2	-6.177e-3	6	-8.316e-3	2	-3.287e-3	1
127	64	max	.244	7	.23	6	.263	6	8.911e-3	1	3.959e-3	7	2.577e-3	2
128		min	-.242	2	-.232	1	-.468	1	-5.119e-3	6	-4.89e-3	2	-2.791e-3	7
129	65	max	.244	7	.223	6	.265	6	7.401e-3	1	3.888e-3	7	1.978e-3	2
130		min	-.242	2	-.23	1	-.464	1	-5.499e-3	6	-4.382e-3	2	-2.336e-3	7
131	66	max	.244	7	.242	6	.257	6	1.048e-2	1	7.391e-3	7	2.23e-3	2
132		min	-.242	2	-.246	1	-.472	1	-8.75e-3	6	-8.32e-3	2	-2.069e-3	7
133	67	max	.221	7	.188	6	.15	2	-1.288e-3	1	1.545e-2	9	3.732e-3	1
134		min	-.219	2	-.185	1	-.481	9	-6.906e-3	8	3.1e-3	2	-3.969e-3	6
135	68	max	.201	7	.203	6	.147	2	5.452e-3	1	4.729e-3	7	2.083e-3	7

Envelope Joint Displacements (Continued)

Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation...	LC	Y Rotation...	LC	Z Rotation...	LC
136		min	2	-0.195	1	-0.468	9	-4.196e-3	6	-5.775e-3	2	-2.292e-3	2
137	69	max	7	.267	6	.162	2	9.755e-3	1	1.63e-2	7	5.154e-3	7
138		min	2	-.262	1	-.497	9	-8.367e-3	6	-1.781e-2	2	-4.316e-3	2
139	70	max	7	.244	6	.273	7	3.236e-3	1	6.268e-3	7	2.551e-3	7
140		min	2	-.251	1	-.474	2	-4.63e-3	6	-7.697e-3	2	-2.81e-3	2
141	71	max	7	.21	6	.229	7	7.722e-3	1	8.585e-3	7	3.447e-3	6
142		min	2	-.217	1	-.444	2	-9.408e-3	6	-9.66e-3	2	-3.354e-3	1
143	72	max	7	.13	6	.265	6	4.791e-3	1	4.676e-3	7	1.205e-3	1
144		min	2	-.12	1	-.464	1	-2.882e-3	6	-5.163e-3	2	-4.306e-4	6
145	73	max	7	.244	6	.265	6	7.401e-3	1	3.888e-3	7	1.978e-3	2
146		min	2	-.242	1	-.464	1	-5.499e-3	6	-4.382e-3	2	-2.336e-3	7
147	74	max	7	.13	6	.258	6	3.608e-3	1	3.103e-3	7	1.257e-3	1
148		min	2	-.12	1	-.471	1	-1.872e-3	6	-4.041e-3	2	-1.005e-3	6
149	75	max	7	.244	6	.258	6	1.048e-2	1	7.391e-3	7	2.23e-3	2
150		min	2	-.242	1	-.471	1	-8.75e-3	6	-8.32e-3	2	-2.069e-3	7
151	76	max	7	.102	6	.265	6	4.791e-3	1	4.676e-3	7	1.205e-3	1
152		min	2	-.089	1	-.464	1	-2.882e-3	6	-5.163e-3	2	-4.306e-4	6
153	77	max	7	.113	6	.258	6	3.502e-3	1	2.947e-3	7	1.257e-3	1
154		min	2	-.097	1	-.471	1	-1.765e-3	6	-3.885e-3	2	-1.005e-3	6
155	78	max	7	.495	6	.265	6	9.132e-3	1	7.825e-3	7	1.978e-3	2
156		min	2	-.511	1	-.464	1	-7.228e-3	6	-8.32e-3	2	-2.336e-3	7
157	79	max	7	1.024	6	.258	6	2.444e-2	1	2.777e-2	7	2.23e-3	2
158		min	2	-1.056	1	-.471	1	-2.269e-2	6	-2.871e-2	2	-2.069e-3	7
159	80	max	7	.033	6	.149	2	1.802e-3	1	6.64e-3	9	1.291e-3	7
160		min	2	-.073	1	-.469	9	-3.722e-3	6	-3.637e-4	2	-4.385e-4	2
161	81	max	7	.063	6	.155	2	3.425e-4	1	6.567e-3	9	1.579e-3	7
162		min	2	-.095	1	-.494	9	-1.979e-3	8	1.623e-3	10	-1.042e-3	2
163	82	max	7	.422	6	.149	2	9.391e-3	1	6.457e-3	7	2.083e-3	7
164		min	2	-.454	1	-.469	9	-8.133e-3	6	-7.504e-3	2	-2.292e-3	2
165	83	max	7	1.361	6	.155	2	2.371e-2	1	3.672e-2	7	5.154e-3	7
166		min	2	-1.412	1	-.495	9	-2.231e-2	6	-3.825e-2	2	-4.316e-3	2
167	84	max	7	.058	6	.27	7	3.278e-3	1	3.675e-3	7	1.279e-3	8
168		min	2	-.049	1	-.471	2	-4.671e-3	6	-5.108e-3	2	-2.868e-4	1
169	85	max	7	.058	6	.234	7	2.008e-3	1	2.228e-3	7	1.002e-3	6
170		min	2	-.058	1	-.448	2	-3.698e-3	6	-3.306e-3	2	-7.617e-4	1
171	86	max	7	.577	6	.27	7	4.962e-3	1	1.021e-2	7	2.551e-3	7
172		min	2	-.635	1	-.471	2	-6.358e-3	6	-1.164e-2	2	-2.81e-3	2
173	87	max	7	.873	6	.234	7	2.811e-2	1	2.253e-2	7	3.447e-3	6
174		min	2	-.917	1	-.448	2	-2.98e-2	6	-2.361e-2	2	-3.354e-3	1
175	88	max	7	.078	2	.063	1	1.577e-2	1	2.371e-3	7	1.579e-3	1
176		min	2	-.078	7	-.134	6	-1.571e-2	6	-3.059e-3	2	-1.658e-3	6
177	89	max	7	.24	6	.064	1	1.668e-2	1	3.116e-3	7	4.636e-3	6
178		min	2	-.244	1	-.135	6	-1.644e-2	6	-3.435e-3	2	-4.577e-3	1
179	90	max	7	.063	2	.063	1	1.576e-2	1	2.368e-3	7	1.579e-3	1
180		min	2	-.06	7	-.134	6	-1.571e-2	6	-3.056e-3	2	-1.658e-3	6
181	91	max	7	.366	6	.064	1	1.719e-2	1	3.616e-3	7	4.636e-3	6
182		min	2	-.381	1	-.135	6	-1.694e-2	6	-3.935e-3	2	-4.577e-3	1
183	92	max	7	.077	7	.078	1	9.975e-3	1	3.784e-3	7	7.204e-4	6
184		min	2	-.079	2	-.162	6	-1.059e-2	6	-3.25e-3	2	-9.428e-4	7
185	93	max	7	.241	6	.077	1	2.511e-2	1	4.708e-3	7	5.765e-3	1
186		min	2	-.243	1	-.161	6	-2.549e-2	6	-4.425e-3	2	-5.524e-3	6
187	94	max	7	.055	7	.078	1	9.882e-3	1	3.724e-3	7	7.204e-4	6
188		min	2	-.06	2	-.162	6	-1.049e-2	6	-3.19e-3	2	-9.428e-4	7
189	95	max	7	.613	6	.077	1	3.725e-2	1	1.272e-2	7	5.765e-3	1
190		min	2	-.606	1	-.161	6	-3.762e-2	6	-1.243e-2	2	-5.524e-3	6
191	96	max	6	.026	6	.046	7	7.765e-3	2	1.382e-2	7	1.466e-3	6
192		min	1	-.027	1	-.12	3	-7.193e-3	7	-1.351e-2	2	-1.568e-3	1



Company :
 Designer :
 Job Number :
 Model Name :

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Envelope Joint Displacements (Continued)

	Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation...	LC	Y Rotation...	LC	Z Rotation...	LC
193	97	max	.541	7	.289	6	.046	7	7.286e-3	2	1.481e-2	7	3.301e-3	2
194		min	-.535	2	-.292	1	-.121	4	-7.143e-3	7	-1.452e-2	2	-3.252e-3	7
195	98	max	.084	2	.111	2	.046	7	7.765e-3	2	1.382e-2	7	1.466e-3	6
196		min	-.085	7	-.107	7	-.12	3	-7.193e-3	7	-1.351e-2	2	-1.568e-3	1
197	99	max	1.088	7	.47	6	.046	7	7.288e-3	2	1.531e-2	7	3.301e-3	2
198		min	-1.071	2	-.482	1	-.121	4	-7.145e-3	7	-1.502e-2	2	-3.252e-3	7
199	100	max	.104	7	.042	6	.105	7	5.537e-3	1	6.991e-3	7	1.308e-3	1
200		min	-.1	2	-.04	1	-.192	2	-5.659e-3	6	-7.744e-3	2	-1.473e-3	6
201	101	max	.51	7	.316	6	.105	7	9.128e-3	1	1.838e-2	7	4.842e-3	7
202		min	-.517	2	-.326	1	-.192	2	-9.12e-3	6	-1.885e-2	2	-4.631e-3	2
203	102	max	.107	1	.01	2	.105	7	5.479e-3	1	6.898e-3	7	1.308e-3	1
204		min	-.094	6	-.01	7	-.192	2	-5.601e-3	6	-7.651e-3	2	-1.473e-3	6
205	103	max	1.477	7	.834	6	.105	7	1.665e-2	1	3.05e-2	7	4.842e-3	7
206		min	-1.502	2	-.844	1	-.192	2	-1.664e-2	6	-3.097e-2	2	-4.631e-3	2
207	104	max	.082	6	.032	6	.076	2	5.817e-3	1	1.2e-2	7	1.844e-3	2
208		min	-.082	1	-.032	1	-.146	7	-6.286e-3	6	-1.18e-2	2	-1.978e-3	7
209	105	max	.522	7	.318	6	.076	2	6.735e-3	1	1.243e-2	7	4.028e-3	7
210		min	-.528	2	-.316	1	-.146	7	-6.975e-3	6	-1.258e-2	2	-3.977e-3	2
211	106	max	.124	6	.037	7	.076	2	5.814e-3	1	1.2e-2	7	1.844e-3	2
212		min	-.127	1	-.041	2	-.146	7	-6.284e-3	6	-1.179e-2	2	-1.978e-3	7
213	107	max	.984	7	.582	6	.076	2	7.236e-3	1	1.294e-2	7	4.028e-3	7
214		min	-.994	2	-.572	1	-.146	7	-7.476e-3	6	-1.308e-2	2	-3.977e-3	2
215	108	max	.028	1	.098	6	.069	6	5.064e-3	7	1.016e-2	7	1.393e-3	7
216		min	-.032	6	-.094	1	-.155	1	-4.266e-3	2	-9.933e-3	2	-1.503e-3	2
217	109	max	.036	2	.083	7	.069	6	5.064e-3	7	1.007e-2	7	1.393e-3	7
218		min	-.043	7	-.073	2	-.155	1	-4.266e-3	2	-9.84e-3	2	-1.503e-3	2
219	110	max	1.673	7	.693	6	.069	6	1.443e-2	1	3.427e-2	7	5.056e-3	2
220		min	-1.662	2	-.72	1	-.155	1	-1.386e-2	6	-3.416e-2	2	-4.803e-3	7
221	111	max	.063	7	.09	6	.149	2	1.802e-3	1	6.641e-3	9	1.291e-3	7
222		min	-.075	2	-.084	1	-.469	9	-3.722e-3	6	-3.637e-4	2	-4.385e-4	2
223	112	max	.079	7	.097	6	.155	2	4.489e-4	1	6.604e-3	9	1.579e-3	7
224		min	-.082	2	-.085	1	-.494	9	-2.006e-3	8	1.623e-3	10	-1.042e-3	2
225	113	max	.08	7	.073	6	.27	7	3.278e-3	1	3.675e-3	7	1.279e-3	8
226		min	-.079	2	-.086	1	-.471	2	-4.671e-3	6	-5.108e-3	2	-2.868e-4	1
227	114	max	.071	7	.08	6	.234	7	2.163e-3	1	2.334e-3	7	1.002e-3	6
228		min	-.078	2	-.088	1	-.448	2	-3.854e-3	6	-3.413e-3	2	-7.617e-4	1
229	115	max	.204	7	.202	6	.149	2	5.452e-3	1	4.729e-3	7	2.083e-3	7
230		min	-.198	2	-.197	1	-.469	9	-4.196e-3	6	-5.775e-3	2	-2.292e-3	2
231	116	max	.26	7	.186	6	.156	2	9.755e-3	1	1.63e-2	7	5.154e-3	7
232		min	-.256	2	-.182	1	-.495	9	-8.367e-3	6	-1.782e-2	2	-4.316e-3	2
233	117	max	.241	7	.186	6	.27	7	3.236e-3	1	6.268e-3	7	2.551e-3	7
234		min	-.247	2	-.184	1	-.471	2	-4.63e-3	6	-7.697e-3	2	-2.81e-3	2
235	118	max	.212	7	.208	6	.234	7	7.722e-3	1	8.585e-3	7	3.447e-3	6
236		min	-.218	2	-.209	1	-.448	2	-9.408e-3	6	-9.66e-3	2	-3.354e-3	1
237	119	max	0	9	0	6	0	2	0	3	0	6	0	4
238		min	0	4	0	1	0	9	0	6	0	3	0	9
239	120	max	0	9	0	6	0	7	0	1	0	1	0	4
240		min	0	4	0	1	0	4	0	8	0	8	0	9
241	121	max	0	7	0	1	0	1	0	1	0	9	0	2
242		min	0	2	0	6	0	8	0	6	0	2	0	7
243	122	max	0	6	0	6	0	7	0	2	0	7	0	1
244		min	0	1	0	1	0	2	0	7	0	2	0	6
245	123	max	0	7	0	2	0	1	0	1	0	1	0	2
246		min	0	2	0	7	0	6	0	6	0	6	0	7
247	124	max	0	6	0	6	0	2	0	1	0	7	0	6
248		min	0	1	0	1	0	9	0	6	0	2	0	1
249	125	max	0	7	0	7	0	1	0	1	0	6	0	2



Company :
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Envelope Joint Displacements (Continued)

Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation...	LC	Y Rotation...	LC	Z Rotation...	LC
250		min	0	2	0	0	2	0	6	0	6	0	7
251	126	max	0	1	0	0	6	0	7	0	1	0	7
252		min	0	6	0	0	1	0	4	0	6	0	2
253	127	max	0	1	0	0	6	0	2	0	7	0	7
254		min	0	6	0	0	1	0	7	0	2	0	2
255	128	max	.241	7	.264	6	.21	2	1.884e-3	1	4.714e-3	7	5.158e-3
256		min	-.243	2	-.257	1	-.298	7	-2.93e-3	6	-4.157e-3	2	-5.317e-3
257	129	max	.078	7	.071	2	.068	1	1.415e-2	1	2.89e-3	7	2.224e-3
258		min	-.078	2	-.069	7	-.144	6	-1.407e-2	6	-3.501e-3	2	-2.398e-3
259	130	max	.239	7	.252	6	.212	7	3.979e-3	1	4.872e-3	7	4.071e-3
260		min	-.245	2	-.258	1	-.302	2	-4.112e-3	6	-5.342e-3	2	-4.271e-3
261	131	max	.077	7	.068	7	.075	1	8.918e-3	1	3.442e-3	7	1.502e-3
262		min	-.079	2	-.074	2	-.156	6	-1.01e-2	6	-2.704e-3	2	-1.741e-3
263	132	max	.258	7	.239	6	.205	7	2.772e-3	7	4.735e-3	7	3.657e-3
264		min	-.264	2	-.244	1	-.296	2	-3.032e-3	2	-5.325e-3	2	-3.902e-3
265	133	max	.033	6	.099	6	.057	6	6.6e-3	2	1.267e-2	7	2.115e-3
266		min	-.034	1	-.1	1	-.133	1	-6.107e-3	7	-1.237e-2	2	-2.249e-3
267	134	max	.301	7	.232	6	.218	6	5.096e-3	1	4.095e-3	7	3.865e-3
268		min	-.295	2	-.234	1	-.307	1	-4.623e-3	6	-4.018e-3	2	-3.995e-3
269	135	max	.101	7	.038	6	.094	7	4.634e-3	1	6.619e-3	7	1.151e-3
270		min	-.097	2	-.037	1	-.177	2	-4.654e-3	6	-8.002e-3	2	-1.378e-3
271	136	max	.301	7	.227	6	.216	6	5.427e-3	1	8.972e-4	7	4.159e-3
272		min	-.295	2	-.231	1	-.305	1	-4.774e-3	6	-7.757e-4	2	-4.308e-3
273	137	max	.092	7	.035	6	.09	2	5.798e-3	1	1.104e-2	7	1.524e-3
274		min	-.089	2	-.036	1	-.165	7	-6.221e-3	6	-1.09e-2	2	-1.735e-3
275	138	max	.263	7	.247	6	.206	2	4.091e-3	1	5.312e-3	7	4.345e-3
276		min	-.267	2	-.241	1	-.294	7	-4.21e-3	6	-4.415e-3	2	-4.456e-3
277	139	max	.03	1	.098	6	.055	6	5.222e-3	7	9.131e-3	7	1.589e-3
278		min	-.033	6	-.095	1	-.144	3	-3.958e-3	2	-8.499e-3	2	-1.796e-3
279	140	max	.571	7	.275	6	.069	6	1.036e-2	7	2.214e-2	7	5.056e-3
280		min	-.563	2	-.282	1	-.155	1	-9.92e-3	2	-2.204e-2	2	-4.803e-3
281	141	max	.157	7	.355	6	.075	1	1.68e-2	1	4.526e-3	7	9.728e-4
282		min	-.161	2	-.353	1	-.155	6	-1.716e-2	6	-4.566e-3	2	-8.931e-4
283	142	max	.157	7	.301	6	.067	1	1.515e-2	1	4.501e-3	7	1.609e-3
284		min	-.161	2	-.301	1	-.142	6	-1.494e-2	6	-4.617e-3	2	-1.734e-3
285	143	max	.321	7	.182	6	.091	7	8.121e-3	1	1.202e-2	7	1.132e-3
286		min	-.322	2	-.187	1	-.175	2	-7.822e-3	6	-1.23e-2	2	-1.051e-3
287	144	max	.264	7	.19	6	.055	6	5.667e-3	2	1.436e-2	7	9.563e-4
288		min	-.261	2	-.195	1	-.13	1	-5.663e-3	7	-1.421e-2	2	-1.066e-3
289	145	max	.31	7	.19	6	.052	6	6.462e-3	7	1.607e-2	7	1.082e-3
290		min	-.308	2	-.191	1	-.143	3	-6.311e-3	2	-1.578e-2	2	-1.039e-3
291	146	max	.298	7	.174	6	.088	2	7.739e-3	1	1.139e-2	7	1.519e-3
292		min	-.297	2	-.173	1	-.162	7	-7.814e-3	6	-1.161e-2	2	-1.657e-3
293	147	max	0	1	0	0	0	1	0	1	0	1	0
294		min	0	1	0	0	0	1	0	1	0	1	0
295	148	max	.05	7	.059	6	.187	7	5.338e-3	1	4.697e-3	7	8.257e-4
296		min	-.048	2	-.053	1	-.276	2	-5.077e-3	6	-4.968e-3	2	-4.95e-4
297	149	max	.426	7	.49	6	.187	7	6.326e-3	1	5.299e-3	7	5.386e-3
298		min	-.438	2	-.506	1	-.276	2	-6.061e-3	6	-5.49e-3	2	-5.378e-3
299	150	max	.06	7	.057	6	.198	6	4.487e-3	1	6.047e-3	7	1.322e-3
300		min	-.066	2	-.059	1	-.286	1	-4.377e-3	6	-5.742e-3	2	-9.907e-4
301	151	max	.565	7	.412	6	.198	6	5.093e-3	1	6.914e-3	7	4.734e-3
302		min	-.549	2	-.415	1	-.286	1	-5.058e-3	6	-6.648e-3	2	-4.693e-3
303	152	max	.057	7	.045	6	.193	2	4.754e-3	1	5.467e-3	7	1.664e-3
304		min	-.052	2	-.05	1	-.279	7	-5.167e-3	6	-5.614e-3	2	-1.279e-3
305	153	max	.505	7	.462	6	.192	2	5.51e-3	1	6.31e-3	7	4.909e-3
306		min	-.516	2	-.446	1	-.278	7	-5.795e-3	6	-6.472e-3	2	-4.961e-3



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Envelope Joint Displacements (Continued)

	Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation...	LC	Y Rotation...	LC	Z Rotation...	LC
307	154	max	.078	7	.089	6	.187	7	5.34e-3	1	4.7e-3	7	8.257e-4	6
308		min	-.078	2	-.085	1	-.276	2	-5.079e-3	6	-4.971e-3	2	-4.95e-4	1
309	155	max	.096	7	.084	6	.198	6	4.489e-3	1	6.049e-3	7	1.322e-3	1
310		min	-.1	2	-.086	1	-.286	1	-4.38e-3	6	-5.744e-3	2	-9.907e-4	6
311	156	max	.09	7	.076	6	.193	2	4.756e-3	1	5.47e-3	7	1.664e-3	7
312		min	-.085	2	-.079	1	-.279	7	-5.17e-3	6	-5.617e-3	2	-1.279e-3	2
313	157	max	.239	7	.277	6	.187	7	5.825e-3	1	4.799e-3	7	5.386e-3	6
314		min	-.245	2	-.283	1	-.276	2	-5.56e-3	6	-4.989e-3	2	-5.378e-3	1
315	158	max	.32	7	.234	6	.198	6	4.592e-3	1	6.414e-3	7	4.734e-3	2
316		min	-.315	2	-.236	1	-.286	1	-4.558e-3	6	-6.147e-3	2	-4.693e-3	7
317	159	max	.283	7	.258	6	.192	2	5.009e-3	1	5.809e-3	7	4.909e-3	7
318		min	-.287	2	-.252	1	-.278	7	-5.294e-3	6	-5.972e-3	2	-4.961e-3	2
319	160	max	.093	7	.084	6	.078	1	1.057e-2	1	4.046e-3	7	4.799e-4	2
320		min	-.092	2	-.088	1	-.162	6	-1.114e-2	6	-3.697e-3	2	-7.125e-4	7
321	161	max	.132	7	.065	6	.105	7	6.13e-3	1	7.394e-3	7	8.696e-4	1
322		min	-.13	2	-.063	1	-.192	2	-6.102e-3	6	-8.021e-3	2	-1.023e-3	6
323	162	max	.059	7	.112	6	.069	6	4.752e-3	7	1.091e-2	7	7.414e-4	7
324		min	-.063	2	-.111	1	-.155	1	-4.138e-3	2	-1.063e-2	2	-8.319e-4	2
325	163	max	.157	7	.305	6	.064	1	1.632e-2	1	4.668e-3	7	1.434e-3	6
326		min	-.161	2	-.307	1	-.135	6	-1.61e-2	6	-4.71e-3	2	-1.418e-3	1
327	164	max	.267	7	.191	6	.046	7	5.88e-3	2	1.519e-2	7	1.53e-3	2
328		min	-.263	2	-.195	1	-.12	4	-5.945e-3	7	-1.506e-2	2	-1.454e-3	7
329	165	max	.301	7	.174	6	.076	2	8.049e-3	1	1.223e-2	7	6.652e-4	1
330		min	-.301	2	-.172	1	-.146	7	-8.058e-3	6	-1.249e-2	2	-6.992e-4	2

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	122	max	1097.237	1	3149.252	1	2255.686	2	2.291	7	2.809	2	.656	6
2		min	-1143.411	6	-3164.642	6	-1046.542	7	-4.84	2	-1.331	7	-.67	1
3	119	max	4.33	4	0	1	19.858	9	0	6	0	3	0	9
4		min	-4.33	9	0	6	6.892	2	0	3	0	6	0	4
5	125	max	2358.21	2	2685.848	2	2143.684	6	4.64	6	1.247	1	.761	7
6		min	-2377.905	7	-2687.742	7	-953.883	1	-2.168	1	-2.668	6	-.766	2
7	123	max	2391.264	2	2711.699	7	2213.631	6	4.758	6	2.735	6	.756	7
8		min	-2361.753	7	-2695.627	2	-1013.374	1	-2.25	1	-1.293	1	-.769	2
9	120	max	4.33	4	0	1	19.466	4	0	8	0	8	0	9
10		min	-4.33	9	0	6	6.487	7	0	1	0	1	0	4
11	127	max	1085.947	6	3062.578	1	2158.932	7	2.21	2	1.284	2	.658	1
12		min	-1059.311	1	-3077.357	6	-992.905	2	-4.663	7	-2.705	7	-.659	6
13	126	max	3069.727	6	652.45	1	2035.528	4	.005	6	5.064	2	.7	6
14		min	-3039.57	1	-661.902	6	-824.618	7	-.01	1	-2.201	7	-.707	1
15	124	max	2996.134	1	632.714	1	2100.252	9	.005	6	2.28	2	.686	1
16		min	-3017.83	6	-656.981	6	-878.1	2	-.011	1	-5.178	7	-.694	6
17	121	max	0	2	0	6	19.452	8	0	6	0	2	0	7
18		min	0	7	0	1	6.483	1	0	1	0	9	0	2
19	Totals:	max	8823.467	2	8146.856	1	10159.509	9						
20		min	-8823.467	7	-8146.856	6	3619.177	2						

Load Combinations

	Description	Solve PDE...	SR	BLC Factor	BLC Factor B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...
1	DEAD LOAD + WIND LOAD (NO ICE) FR...	Yes	Y	1	1.2			3	1.6						
2	DEAD LOAD + WIND LOAD (NO ICE) SIDE	Yes	Y	1	1.2			4	1.6						
3	DEAD LOAD + DEAD LOAD ICE + WIND ...	Yes	Y	1	1.2	2	1	5	1						
4	DEAD LOAD + DEAD LOAD ICE + WIND ...	Yes	Y	1	1.2	2	1	6	1						



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Load Combinations (Continued)

	Description	Solve PDe...	SR..	BLC Factor	BLC FactorB...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
5	DEAD LOAD + LIVE LOAD	Yes	Y	1	1.2			7	1.6							
6	DEAD LOAD + WIND LOAD (NO ICE) FR...	Yes	Y	1	1.2		3	-1.6								
7	DEAD LOAD + WIND LOAD (NO ICE) SID...	Yes	Y	1	1.2		4	-1.6								
8	DEAD LOAD + DEAD LOAD ICE + WIND ...	Yes	Y	1	1.2	2	1	5	-1							
9	DEAD LOAD + DEAD LOAD ICE + WIND ...	Yes	Y	1	1.2	2	1	6	-1							
10	DL+LL2	Yes	Y	1	1.2			8	1.6							
11	DL+LL3	Yes	Y	1	1.2			9	1.6							

Load Combination Design

	Description	ASIF	CD	ABIF	Service Hot Rolled Cold For...	Wood	Concrete	Masonry	Footings	Aluminum	Connecti...
1	DEAD LOA...				Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	DEAD LOA...				Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	DEAD LOA...				Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	DEAD LOA...				Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	DEAD LOA...				Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	DEAD LOA...				Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	DEAD LOA...				Yes	Yes	Yes	Yes	Yes	Yes	Yes
8	DEAD LOA...				Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	DEAD LOA...				Yes	Yes	Yes	Yes	Yes	Yes	Yes
10	DL+LL2				Yes	Yes	Yes	Yes	Yes	Yes	Yes
11	DL+LL3				Yes	Yes	Yes	Yes	Yes	Yes	Yes

Member Distributed Loads (BLC 2 : DEAD LOAD ICE)

	Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location[j...End Location[j...
1	46	Z	-8	-8	0 0
2	51	Z	-8	-8	0 0
3	50	Z	-8	-8	0 0
4	49	Z	-8	-8	0 0
5	48	Z	-8	-8	0 0
6	53	Z	-8	-8	0 0
7	52	Z	-8	-8	0 0
8	45	Z	-8	-8	0 0
9	44	Z	-8	-8	0 0
10	55	Z	-8	-8	0 0
11	54	Z	-8	-8	0 0
12	47	Z	-8	-8	0 0
13	1	Z	-15	-15	0 0
14	2	Z	-15	-15	0 0
15	3	Z	-15	-15	0 0
16	7	Z	-15	-15	0 0
17	5	Z	-15	-15	0 0
18	9	Z	-15	-15	0 0
19	10	Z	-8	-8	0 0
20	11	Z	-8	-8	0 0
21	12	Z	-8	-8	0 0
22	16	Z	-5	-5	0 0
23	18	Z	-5	-5	0 0
24	19	Z	-5	-5	0 0
25	17	Z	-5	-5	0 0
26	56	Z	-5	-5	0 0
27	23	Z	-5	-5	0 0
28	24	Z	-5	-5	0 0
29	22	Z	-5	-5	0 0
30	57	Z	-5	-5	0 0

Member Distributed Loads (BLC 2 : DEAD LOAD ICE) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location[j...End Location[j...
31	28	Z	-5	-5	0 0
32	29	Z	-5	-5	0 0
33	27	Z	-5	-5	0 0
34	20	Z	-5	-5	0 0
35	21	Z	-5	-5	0 0
36	25	Z	-5	-5	0 0
37	26	Z	-5	-5	0 0
38	30	Z	-5	-5	0 0
39	31	Z	-5	-5	0 0
40	58	Z	-5	-5	0 0
41	59	Z	-5	-5	0 0
42	60	Z	-5	-5	0 0
43	40	Z	-11	-11	0 0
44	34	Z	-11	-11	0 0
45	42	Z	-11	-11	0 0
46	36	Z	-11	-11	0 0
47	41	Z	-11	-11	0 0
48	35	Z	-11	-11	0 0
49	39	Z	-18	-18	0 0
50	33	Z	-18	-18	0 0
51	43	Z	-18	-18	0 0
52	37	Z	-18	-18	0 0
53	38	Z	-18	-18	0 0
54	32	Z	-18	-18	0 0
55	61	Z	-8	-8	0 0
56	52	Z	-8	-8	0 78
57	62	Z	-8	-8	0 0
58	54	Z	-8	-8	0 78
59	63	Z	-8	-8	0 0

Member Distributed Loads (BLC 3 : WIND LOAD (NO ICE) FRONT)

	Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location[j...End Location[j...
1	48	PY	-7	-7	0 0
2	53	PY	-7	-7	0 0
3	45	PY	-7	-7	0 0
4	44	PY	-7	-7	0 0
5	55	PY	-7	-7	0 0
6	47	PY	-7	-7	0 0
7	1	PY	-26	-26	0 0
8	2	PY	-26	-26	0 0
9	3	PY	-26	-26	0 0
10	10	PY	-16	-16	0 0
11	11	PY	-16	-16	0 0
12	12	PY	-16	-16	0 0
13	16	PY	-9	-9	0 0
14	18	PY	-9	-9	0 0
15	19	PY	-9	-9	0 0
16	17	PY	-9	-9	0 0
17	56	PY	-9	-9	0 0
18	23	PY	-9	-9	0 0
19	24	PY	-9	-9	0 0
20	22	PY	-9	-9	0 0
21	57	PY	-9	-9	0 0
22	28	PY	-9	-9	0 0
23	29	PY	-9	-9	0 0
24	27	PY	-9	-9	0 0



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Member Distributed Loads (BLC 3 : WIND LOAD (NO ICE) FRONT) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location[i...]	End Location[i...]
25	20	PY	-9	-9	0	0
26	21	PY	-9	-9	0	0
27	25	PY	-9	-9	0	0
28	26	PY	-9	-9	0	0
29	30	PY	-9	-9	0	0
30	31	PY	-9	-9	0	0
31	58	PY	-9	-9	0	0
32	59	PY	-9	-9	0	0
33	60	PY	-9	-9	0	0
34	40	PY	-10	-10	0	0
35	34	PY	-10	-10	0	0
36	42	PY	-10	-10	0	0
37	36	PY	-10	-10	0	0
38	41	PY	-10	-10	0	0
39	35	PY	-10	-10	0	0
40	39	PY	-31	-31	0	0
41	33	PY	-31	-31	0	0
42	43	PY	-31	-31	0	0
43	37	PY	-31	-31	0	0
44	38	PY	-31	-31	0	0
45	32	PY	-31	-31	0	0
46	50	PY	-7	-7	0	0
47	61	PY	-7	-7	0	0
48	52	PY	-7	-7	0	78
49	62	PY	-7	-7	0	0
50	54	PY	-7	-7	0	78
51	63	PY	-7	-7	0	0
52	44	Y	7	7	0	0
53	45	Y	7	7	0	0
54	47	Y	7	7	0	0
55	48	Y	7	7	0	0
56	53	Y	7	7	0	0
57	55	Y	7	7	0	0

Member Distributed Loads (BLC 4 : WIND LOAD (NO ICE) SIDE)

	Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location[i...]	End Location[i...]
1	46	PX	-7	-7	0	0
2	51	PX	-7	-7	0	0
3	50	PX	-7	-7	0	0
4	49	PX	-7	-7	0	0
5	1	PX	-26	-26	0	0
6	2	PX	-26	-26	0	0
7	3	PX	-26	-26	0	0
8	10	PX	-16	-16	0	0
9	11	PX	-16	-16	0	0
10	12	PX	-16	-16	0	0
11	16	PX	-9	-9	0	0
12	18	PX	-9	-9	0	0
13	19	PX	-9	-9	0	0
14	17	PX	-9	-9	0	0
15	56	PX	-9	-9	0	0
16	23	PX	-9	-9	0	0
17	24	PX	-9	-9	0	0
18	22	PX	-9	-9	0	0
19	57	PX	-9	-9	0	0
20	28	PX	-9	-9	0	0



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 Job Number :
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Member Distributed Loads (BLC 4 : WIND LOAD (NO ICE) SIDE) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location[i...End Location[i...
21	29	PX	-9	0 0
22	27	PX	-9	0 0
23	20	PX	-9	0 0
24	21	PX	-9	0 0
25	25	PX	-9	0 0
26	26	PX	-9	0 0
27	30	PX	-9	0 0
28	31	PX	-9	0 0
29	58	PX	-9	0 0
30	59	PX	-9	0 0
31	60	PX	-9	0 0
32	40	PX	-10	0 0
33	34	PX	-10	0 0
34	42	PX	-10	0 0
35	36	PX	-10	0 0
36	41	PX	-10	0 0
37	35	PX	-10	0 0
38	39	PX	-31	0 0
39	33	PX	-31	0 0
40	43	PX	-31	0 0
41	37	PX	-31	0 0
42	38	PX	-31	0 0
43	32	PX	-31	0 0
44	52	PX	-7	0 0
45	54	PX	-7	0 0
46	61	PX	-7	0 0
47	62	PX	-7	0 0
48	63	PX	-7	0 0
49	46	X	7	0 0
50	49	X	7	0 0

Member Distributed Loads (BLC 5 : WIND LOAD (ICE) FRONT)

Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location[i...End Location[i...
1	48	PY	-4.9	0 0
2	53	PY	-4.9	0 0
3	45	PY	-4.9	0 0
4	44	PY	-4.9	0 0
5	55	PY	-4.9	0 0
6	54	PY	-4.9	0 0
7	47	PY	-4.9	0 0
8	1	PY	-9.8	0 0
9	2	PY	-9.8	0 0
10	3	PY	-9.8	0 0
11	10	PY	-7	0 0
12	11	PY	-7	0 0
13	12	PY	-7	0 0
14	16	PY	-5.4	0 0
15	18	PY	-5.4	0 0
16	19	PY	-5.4	0 0
17	17	PY	-5.4	0 0
18	56	PY	-5.4	0 0
19	23	PY	-5.4	0 0
20	24	PY	-5.4	0 0
21	22	PY	-5.4	0 0
22	57	PY	-5.4	0 0
23	28	PY	-5.4	0 0



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Member Distributed Loads (BLC 5 : WIND LOAD (ICE) FRONT) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location[j]...	End Location[j]...
24	29	PY	-5.4	-5.4	0 0
25	27	PY	-5.4	-5.4	0 0
26	20	PY	-5.4	-5.4	0 0
27	21	PY	-5.4	-5.4	0 0
28	25	PY	-5.4	-5.4	0 0
29	26	PY	-5.4	-5.4	0 0
30	30	PY	-5.4	-5.4	0 0
31	31	PY	-5.4	-5.4	0 0
32	58	PY	-5.4	-5.4	0 0
33	59	PY	-5.4	-5.4	0 0
34	60	PY	-5.4	-5.4	0 0
35	40	PY	-6.3	-6.3	0 0
36	34	PY	-6.3	-6.3	0 0
37	42	PY	-6.3	-6.3	0 0
38	36	PY	-6.3	-6.3	0 0
39	41	PY	-6.3	-6.3	0 0
40	35	PY	-6.3	-6.3	0 0
41	39	PY	-10.7	-10.7	0 0
42	33	PY	-10.7	-10.7	0 0
43	43	PY	-10.7	-10.7	0 0
44	37	PY	-10.7	-10.7	0 0
45	38	PY	-10.7	-10.7	0 0
46	32	PY	-10.7	-10.7	0 0
47	50	PY	-4.9	-4.9	0 0
48	61	PY	-4.9	-4.9	0 0
49	52	PY	-4.9	-4.9	0 78
50	62	PY	-4.9	-4.9	0 0
51	63	PY	-4.9	-4.9	0 0
52	44	Y	4.9	4.9	0 0
53	45	Y	4.9	4.9	0 0
54	47	Y	4.9	4.9	0 0
55	48	Y	4.9	4.9	0 0
56	53	Y	4.9	4.9	0 0
57	55	Y	4.9	4.9	0 0

Member Distributed Loads (BLC 6 : WIND LOAD (ICE) SIDE)

Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location[j]...	End Location[j]...
1	46	PX	-4.9	-4.9	0 0
2	51	PX	-4.9	-4.9	0 0
3	50	PX	-4.9	-4.9	0 0
4	49	PX	-4.9	-4.9	0 0
5	1	PX	-9.8	-9.8	0 0
6	2	PX	-9.8	-9.8	0 0
7	3	PX	-9.8	-9.8	0 0
8	7	PX	-10	-10	0 0
9	5	PX	-10	-10	0 0
10	9	PX	-10	-10	0 0
11	10	PX	-7	-7	0 0
12	11	PX	-7	-7	0 0
13	12	PX	-7	-7	0 0
14	16	PX	-5.4	-5.4	0 0
15	18	PX	-5.4	-5.4	0 0
16	19	PX	-5.4	-5.4	0 0
17	17	PX	-5.4	-5.4	0 0
18	56	PX	-5.4	-5.4	0 0
19	23	PX	-5.4	-5.4	0 0



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Member Distributed Loads (BLC 6 : WIND LOAD (ICE SIDE) (Continued))

Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location[j...]	End Location[j...]
20	24	PX	-5.4	-5.4	0 0
21	22	PX	-5.4	-5.4	0 0
22	57	PX	-5.4	-5.4	0 0
23	28	PX	-5.4	-5.4	0 0
24	29	PX	-5.4	-5.4	0 0
25	27	PX	-5.4	-5.4	0 0
26	20	PX	-5.4	-5.4	0 0
27	21	PX	-5.4	-5.4	0 0
28	25	PX	-5.4	-5.4	0 0
29	26	PX	-5.4	-5.4	0 0
30	30	PX	-5.4	-5.4	0 0
31	31	PX	-5.4	-5.4	0 0
32	58	PX	-5.4	-5.4	0 0
33	59	PX	-5.4	-5.4	0 0
34	60	PX	-5.4	-5.4	0 0
35	40	PX	-6.3	-6.3	0 0
36	34	PX	-6.3	-6.3	0 0
37	42	PX	-6.3	-6.3	0 0
38	36	PX	-6.3	-6.3	0 0
39	41	PX	-6.3	-6.3	0 0
40	35	PX	-6.3	-6.3	0 0
41	39	PX	-10.7	-10.7	0 0
42	33	PX	-10.7	-10.7	0 0
43	43	PX	-10.7	-10.7	0 0
44	37	PX	-10.7	-10.7	0 0
45	38	PX	-10.7	-10.7	0 0
46	32	PX	-10.7	-10.7	0 0
47	62	PX	-3.5	-3.5	0 0
48	63	PX	-3.5	-3.5	0 0

Member Distributed Loads (BLC 10 : BLC 1 Transient Area Loads)

Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location[j...]	End Location[j...]
1	1	Z	-823	-3.018	0 14.4
2	1	Z	-3.018	-4.283	14.4 28.8
3	1	Z	-4.283	-3.437	28.8 43.2
4	1	Z	-3.437	-1.463	43.2 57.6
5	1	Z	-1.463	-.146	57.6 72
6	3	Z	-.144	-1.462	71.976 86.371
7	3	Z	-1.462	-3.411	86.371 100.766
8	3	Z	-3.411	-4.276	100.766 115.161
9	3	Z	-4.276	-3.068	115.161 129.557
10	3	Z	-3.068	-.912	129.557 143.952
11	8	Z	-.061	-.56	0 1.197
12	8	Z	-.56	-1.013	1.197 2.394
13	8	Z	-1.013	-1.023	2.394 3.59
14	8	Z	-1.023	-.577	3.59 4.787
15	8	Z	-.577	-.073	4.787 5.984
16	9	Z	-.203	-2.293	0 14.398
17	9	Z	-2.293	-4.13	14.398 28.796
18	9	Z	-4.13	-4.088	28.796 43.194
19	9	Z	-4.088	-2.267	43.194 57.592
20	9	Z	-2.267	-.228	57.592 71.99
21	2	Z	-.141	-1.451	71.986 86.383
22	2	Z	-1.451	-3.429	86.383 100.78
23	2	Z	-3.429	-4.288	100.78 115.177
24	2	Z	-4.288	-3.075	115.177 129.574



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Member Distributed Loads (BLC 10 : BLC 1 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location[i...]	End Location[i...]
25	2	Z	-3.075	-.946	129.574	143.971
26	3	Z	-.816	-2.999	0	14.395
27	3	Z	-2.999	-4.271	14.395	28.79
28	3	Z	-4.271	-3.445	28.79	43.186
29	3	Z	-3.445	-1.472	43.186	57.581
30	3	Z	-1.472	-.145	57.581	71.976
31	6	Z	-.052	-.623	0	1.2
32	6	Z	-.623	-1.052	1.2	2.4
33	6	Z	-1.052	-1.007	2.4	3.6
34	6	Z	-1.007	-.589	3.6	4.8
35	6	Z	-.589	-.098	4.8	5.999
36	7	Z	-.204	-2.282	0	14.404
37	7	Z	-2.282	-4.105	14.404	28.807
38	7	Z	-4.105	-4.099	28.807	43.211
39	7	Z	-4.099	-2.29	43.211	57.614
40	7	Z	-2.29	-.204	57.614	72.018
41	1	Z	-.169	-1.702	72	86.4
42	1	Z	-1.702	-3.986	86.4	100.8
43	1	Z	-3.986	-5	100.8	115.2
44	1	Z	-5	-3.578	115.2	129.6
45	1	Z	-3.578	-1.078	129.6	144
46	2	Z	-.948	-3.517	0	14.397
47	2	Z	-3.517	-4.997	14.397	28.794
48	2	Z	-4.997	-4.017	28.794	43.191
49	2	Z	-4.017	-1.717	43.191	57.588
50	2	Z	-1.717	-.171	57.588	71.986
51	4	Z	-.059	-.706	0	1.2
52	4	Z	-.706	-1.197	1.2	2.399
53	4	Z	-1.197	-1.145	2.399	3.599
54	4	Z	-1.145	-.654	3.599	4.798
55	4	Z	-.654	-.081	4.798	5.998
56	5	Z	-.238	-2.662	0	14.395
57	5	Z	-2.662	-4.788	14.395	28.789
58	5	Z	-4.788	-4.777	28.789	43.184
59	5	Z	-4.777	-2.665	43.184	57.579
60	5	Z	-2.665	-.238	57.579	71.973

Member Distributed Loads (BLC 11 : BLC 2 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location[i...]	End Location[i...]
1	2	Z	-.375	-3.871	71.986	86.383
2	2	Z	-3.871	-9.144	86.383	100.78
3	2	Z	-9.144	-11.435	100.78	115.177
4	2	Z	-11.435	-8.199	115.177	129.574
5	2	Z	-8.199	-2.524	129.574	143.971
6	3	Z	-2.176	-7.997	0	14.395
7	3	Z	-7.997	-11.391	14.395	28.79
8	3	Z	-11.391	-9.186	28.79	43.186
9	3	Z	-9.186	-3.925	43.186	57.581
10	3	Z	-3.925	-.388	57.581	71.976
11	6	Z	-.138	-1.662	0	1.2
12	6	Z	-1.662	-2.806	1.2	2.4
13	6	Z	-2.806	-2.686	2.4	3.6
14	6	Z	-2.686	-1.571	3.6	4.8
15	6	Z	-1.571	-.261	4.8	5.999
16	7	Z	-.545	-6.086	0	14.404
17	7	Z	-6.086	-10.946	14.404	28.807



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Member Distributed Loads (BLC 11 : BLC 2 Transient Area Loads) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location ...	End Location ...
18	7	Z	-10.946	-10.931	28.807 43.211
19	7	Z	-10.931	-6.106	43.211 57.614
20	7	Z	-6.106	-.545	57.614 72.018
21	1	Z	-2.195	-8.048	0 14.4
22	1	Z	-8.048	-11.421	14.4 28.8
23	1	Z	-11.421	-9.165	28.8 43.2
24	1	Z	-9.165	-3.902	43.2 57.6
25	1	Z	-3.902	-.388	57.6 72
26	3	Z	-.384	-3.898	71.976 86.371
27	3	Z	-3.898	-9.096	86.371 100.766
28	3	Z	-9.096	-11.402	100.766 115.161
29	3	Z	-11.402	-8.182	115.161 129.557
30	3	Z	-8.182	-2.431	129.557 143.952
31	8	Z	-.163	-1.493	0 1.197
32	8	Z	-1.493	-2.702	1.197 2.394
33	8	Z	-2.702	-2.727	2.394 3.59
34	8	Z	-2.727	-1.537	3.59 4.787
35	8	Z	-1.537	-.195	4.787 5.984
36	9	Z	-.542	-6.115	0 14.398
37	9	Z	-6.115	-11.013	14.398 28.796
38	9	Z	-11.013	-10.902	28.796 43.194
39	9	Z	-10.902	-6.045	43.194 57.592
40	9	Z	-6.045	-.609	57.592 71.99
41	1	Z	-.385	-3.891	72 86.4
42	1	Z	-3.891	-9.11	86.4 100.8
43	1	Z	-9.11	-11.428	100.8 115.2
44	1	Z	-11.428	-8.179	115.2 129.6
45	1	Z	-8.179	-2.464	129.6 144
46	2	Z	-2.168	-8.04	0 14.397
47	2	Z	-8.04	-11.421	14.397 28.794
48	2	Z	-11.421	-9.181	28.794 43.191
49	2	Z	-9.181	-3.925	43.191 57.588
50	2	Z	-3.925	-.39	57.588 71.986
51	4	Z	-.135	-1.613	0 1.2
52	4	Z	-1.613	-2.737	1.2 2.399
53	4	Z	-2.737	-2.616	2.399 3.599
54	4	Z	-2.616	-1.495	3.599 4.798
55	4	Z	-1.495	-.184	4.798 5.998
56	5	Z	-.544	-6.085	0 14.395
57	5	Z	-6.085	-10.945	14.395 28.789
58	5	Z	-10.945	-10.919	28.789 43.184
59	5	Z	-10.919	-6.093	43.184 57.579
60	5	Z	-6.093	-.544	57.579 71.973

Joint Loads and Enforced Displacements (BLC 7 : LIVE LOAD)

Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2/in, lb*s^2*in)]
1 48	L	Z	-500

Joint Loads and Enforced Displacements (BLC 8 : LL2)

Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2/in, lb*s^2*in)]
1 50	L	Z	-500

Joint Loads and Enforced Displacements (BLC 9 : LL3)

Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2/in, lb*s^2*in)]
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Joint Loads and Enforced Displacements (BLC 9 : LL3) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.k-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	49	L	Z	-500

Member Point Loads (BLC 1 : DEAD LOAD)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in,%]
1	46	Z	-32	%15
2	51	Z	-60	%4
3	50	Z	0	%50
4	49	Z	-175	%4
5	48	Z	-32	%15
6	53	Z	-60	%4
7	52	Z	0	%50
8	45	Z	-175	%4
9	44	Z	-32	%15
10	55	Z	-60	%4
11	54	Z	0	%50
12	47	Z	-175	%4
13	46	Z	-32	%85
14	51	Z	-60	%96
15	50	Z	0	%50
16	49	Z	-175	%96
17	48	Z	-32	%85
18	53	Z	-60	%96
19	52	Z	0	%50
20	45	Z	-175	%96
21	44	Z	-32	%85
22	55	Z	-60	%96
23	54	Z	0	%50
24	47	Z	-175	%96
25	61	Z	0	%50
26	61	Z	0	%50
27	52	Z	0	39
28	52	Z	0	39
29	62	Z	0	%50
30	62	Z	0	%50
31	54	Z	0	39
32	54	Z	0	39
33	63	Z	0	%50
34	63	Z	0	%50

Member Point Loads (BLC 2 : DEAD LOAD ICE)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in,%]
1	46	Z	-95	%15
2	51	Z	-174	%4
3	50	Z	0	%50
4	49	Z	-321	%4
5	48	Z	-95	%15
6	53	Z	-174	%4
7	52	Z	0	%50
8	45	Z	-321	%4
9	44	Z	-95	%15
10	55	Z	-174	%4
11	54	Z	0	%50
12	47	Z	-321	%4
13	46	Z	-95	%85
14	51	Z	-174	%96



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Member Point Loads (BLC 2 : DEAD LOAD ICE) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in,%]
15	50	Z	0	%50
16	49	Z	-321	%96
17	48	Z	-95	%85
18	53	Z	-174	%96
19	52	Z	0	%50
20	45	Z	-321	%96
21	44	Z	-95	%85
22	55	Z	-174	%96
23	54	Z	0	%50
24	47	Z	-321	%96
25	61	Z	0	%50
26	61	Z	0	%50
27	52	Z	0	39
28	52	Z	0	39
29	62	Z	0	%50
30	62	Z	0	%50
31	54	Z	0	39
32	54	Z	0	39
33	63	Z	0	%50
34	63	Z	0	%50

Member Point Loads (BLC 3 : WIND LOAD (NO ICE) FRONT)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in,%]
1	46	Y	-121	%15
2	51	Y	-203	%4
3	50	Y	0	%50
4	49	Y	-341	%4
5	48	Y	-53	%15
6	53	Y	-126	%4
7	52	Y	0	%50
8	45	Y	-233	%4
9	44	Y	-53	%15
10	55	Y	-126	%4
11	54	Y	0	%50
12	47	Y	-233	%4
13	46	Y	-121	%85
14	51	Y	-203	%96
15	50	Y	0	%50
16	49	Y	-341	%96
17	48	Y	-53	%85
18	53	Y	-126	%96
19	52	Y	0	%50
20	45	Y	-233	%96
21	44	Y	-53	%85
22	55	Y	-126	%96
23	54	Y	0	%50
24	47	Y	-233	%96
25	61	Y	0	%50
26	61	Y	0	%50
27	52	Y	0	39
28	52	Y	0	39
29	62	Y	0	%50
30	62	Y	0	%50
31	54	Y	0	39
32	54	Y	0	39
33	63	Y	0	%50



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Member Point Loads (BLC 3 : WIND LOAD (NO ICE) FRONT) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.-%]
34	63	Y	0	%50

Member Point Loads (BLC 4 : WIND LOAD (NO ICE) SIDE)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.-%]
1	46	X	-53	%15
2	51	X	-126	%4
3	50	X	0	%50
4	49	X	-233	%4
5	48	X	-121	%15
6	53	X	-203	%4
7	52	X	0	%50
8	45	X	-341	%4
9	44	X	-121	%15
10	55	X	-203	%4
11	54	X	0	%50
12	47	X	-341	%4
13	46	X	-53	%85
14	51	X	-126	%96
15	50	X	0	%50
16	49	X	-233	%96
17	48	X	-121	%85
18	53	X	-203	%96
19	52	X	0	%50
20	45	X	-341	%96
21	44	X	-121	%85
22	55	X	-203	%96
23	54	X	0	%50
24	47	X	-341	%96
25	61	X	0	%50
26	61	X	0	%50
27	52	X	0	39
28	52	X	0	39
29	62	X	0	%50
30	62	X	0	%50
31	54	X	0	39
32	54	X	0	39
33	63	X	0	%50
34	63	X	0	%50

Member Point Loads (BLC 5 : WIND LOAD (ICE) FRONT)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.-%]
1	46	Y	-47	%15
2	51	Y	-73	%4
3	50	Y	0	%50
4	49	Y	-125	%4
5	48	Y	-25	%15
6	53	Y	-51	%4
7	52	Y	0	%50
8	45	Y	-92	%4
9	44	Y	-25	%15
10	55	Y	-51	%4
11	54	Y	0	%50
12	47	Y	-92	%4
13	46	Y	-47	%85
14	51	Y	-73	%96
15	50	Y	0	%50



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Member Point Loads (BLC 5 : WIND LOAD (ICE) FRONT) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in, %]
16	49	Y	-125	%96
17	48	Y	-25	%85
18	53	Y	-51	%96
19	52	Y	0	%50
20	45	Y	-92	%96
21	44	Y	-25	%85
22	55	Y	-51	%96
23	54	Y	0	%50
24	47	Y	-92	%96
25	61	Y	0	%50
26	61	Y	0	%50
27	52	Y	0	39
28	52	Y	0	39
29	62	Y	0	%50
30	62	Y	0	%50
31	54	Y	0	39
32	54	Y	0	39
33	63	Y	0	%50
34	63	Y	0	%50

Member Point Loads (BLC 6 : WIND LOAD (ICE) SIDE)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in, %]
1	46	X	-25	%15
2	51	X	-51	%4
3	50	X	0	%50
4	49	X	-92	%4
5	48	X	-47	%15
6	53	X	-73	%4
7	52	X	0	%50
8	45	X	-125	%4
9	44	X	-47	%15
10	55	X	-73	%4
11	54	X	0	%50
12	47	X	-125	%4
13	46	X	-25	%85
14	51	X	-51	%96
15	50	X	0	%50
16	49	X	-92	%96
17	48	X	-47	%85
18	53	X	-73	%96
19	52	X	0	%50
20	45	X	-125	%96
21	44	X	-47	%85
22	55	X	-73	%96
23	54	X	0	%50
24	47	X	-125	%96

Member Area Loads (BLC 1 : DEAD LOAD)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	18	8	5	17	Z	Two Way	-3
2	19	13	12	16	Z	Two Way	-3
3	6	11	14	7	Z	Two Way	-3.5

Member Area Loads (BLC 2 : DEAD LOAD ICE)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
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Member Area Loads (BLC 2 : DEAD LOAD ICE) (Continued)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	19	13	12	16	Z	Two Way	-8
2	17	18	8	5	Z	Two Way	-8
3	6	11	14	7	Z	Two Way	-8

Envelope Member Section Deflections

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC
1	1	1	max	.079	2	.302	7	.079	1	3.262e-3	6	NC	1	NC	1
2			min	-.077	7	-.213	2	-.076	6	-2.545e-3	1	278.587	7	NC	1
3		2	max	.079	2	.167	6	.065	2	9.54e-3	6	NC	1	NC	3
4			min	-.077	7	-.08	1	-.057	7	-8.914e-3	1	409.785	7	2670.341	2
5		3	max	.078	2	.117	6	.002	6	6.979e-3	6	NC	5	NC	2
6			min	-.077	7	-.056	1	-.002	1	-3.345e-3	1	582.436	7	1761.353	1
7		4	max	.078	2	.154	6	.056	1	1.166e-2	6	NC	1	NC	3
8			min	-.078	7	-.073	1	-.06	6	-1.179e-2	1	412.544	2	2034.285	2
9		5	max	.078	2	.307	2	.084	1	3.688e-3	6	NC	1	NC	1
10			min	-.078	7	-.215	7	-.085	6	-3.495e-3	1	277.333	2	5538.503	2
11	2	1	max	.072	1	.302	2	.063	7	3.413e-3	2	NC	1	NC	1
12			min	-.07	6	-.21	7	-.06	2	-2.803e-3	7	539.469	2	NC	1
13		2	max	.071	1	.208	2	.091	7	6.752e-3	2	NC	11	NC	4
14			min	-.07	6	-.118	7	-.084	2	-6.216e-3	7	833.178	2	1875.339	1
15		3	max	.07	1	.116	2	.002	2	6.842e-3	2	NC	3	NC	3
16			min	-.069	6	-.053	7	-.002	7	-3.164e-3	7	752.05	6	2194.109	7
17		4	max	.069	1	.17	1	.079	6	1.172e-2	2	NC	4	NC	4
18			min	-.069	6	-.089	6	-.083	1	-1.179e-2	7	535.023	6	2527.012	7
19		5	max	.07	1	.312	1	.087	7	3.272e-3	2	NC	2	NC	1
20			min	-.069	6	-.222	6	-.088	2	-3.065e-3	7	358.365	6	5195.261	2
21	3	1	max	.069	6	.311	1	.09	2	2.804e-3	7	NC	2	NC	1
22			min	-.068	1	-.22	6	-.087	7	-2.202e-3	2	353.535	1	5563.061	2
23		2	max	.069	6	.176	1	.073	6	1.012e-2	7	NC	10	NC	3
24			min	-.068	1	-.087	6	-.066	1	-9.519e-3	2	529.391	1	2176.161	7
25		3	max	.068	6	.114	7	.002	7	6.813e-3	7	NC	3	NC	3
26			min	-.068	1	-.053	2	-.002	2	-3.188e-3	2	729.746	6	2113.432	7
27		4	max	.069	6	.194	7	.085	2	9.426e-3	7	NC	4	NC	3
28			min	-.07	1	-.115	2	-.091	7	-9.639e-3	2	898.997	2	2168.401	6
29		5	max	.07	6	.298	7	.064	2	3.838e-3	7	NC	1	NC	1
30			min	-.07	1	-.209	2	-.066	7	-3.466e-3	2	566.194	2	NC	1
31	4	1	max	.075	6	.075	2	.21	7	3.709e-3	7	NC	2	NC	2
32			min	-.074	1	-.078	7	-.302	2	-3.982e-3	2	9768.98	1	1083.615	1
33		2	max	.075	6	.075	2	.211	7	3.002e-3	7	NC	1	NC	2
34			min	-.074	1	-.077	7	-.303	2	-6.462e-3	2	4918.803	8	1068.004	1
35		3	max	.075	6	.075	2	.213	7	2.295e-3	7	NC	1	NC	7
36			min	-.074	1	-.076	7	-.306	2	-1.05e-2	4	2429.452	8	1342.04	10
37		4	max	.075	6	.075	2	.215	7	3.323e-3	7	NC	1	NC	1
38			min	-.074	1	-.075	7	-.308	2	-6.845e-3	2	1584.524	8	2378.142	10
39		5	max	.075	6	.075	2	.215	7	4.35e-3	7	NC	1	NC	1
40			min	-.074	1	-.074	7	-.307	2	-4.747e-3	2	1175.719	8	NC	1
41	5	1	max	.002	6	.123	2	.079	6	2.989e-3	7	NC	6	NC	2
42			min	-.002	1	-.059	7	-.08	1	-5.397e-3	2	573.204	1	885.343	1
43		2	max	0	6	.027	2	.037	6	1.196e-3	7	NC	5	NC	4
44			min	0	1	-.013	7	-.038	1	-2.16e-3	2	1009.515	1	1834.858	1
45		3	max	0	1	0	1	0	1	0	1	NC	6	NC	1
46			min	0	1	0	1	0	1	0	1	811.987	4	1179.795	7
47		4	max	0	7	.026	6	.043	2	7.368e-4	1	NC	11	NC	1
48			min	0	2	-.012	1	-.042	7	-1.557e-3	6	1042.403	4	3858.905	7
49		5	max	.002	7	.118	6	.088	2	1.843e-3	1	NC	1	NC	1



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Envelope Member Section Deflections (Continued)

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC
50		min	-.002	2	-.056	1	-.088	7	-3.897e-3	6	585.257	6	2586.104	2
51	6	max	.104	2	.076	1	.22	6	4.23e-3	6	NC	1	NC	1
52		min	-.103	7	-.079	6	-.311	1	-4.5e-3	1	NC	1	NC	1
53		max	.104	2	.078	1	.221	6	3.349e-3	6	NC	2	NC	6
54		min	-.103	7	-.079	6	-.312	1	-6.806e-3	1	3947.651	1	2502.108	5
55		max	.104	2	.079	1	.221	6	2.47e-3	6	NC	2	NC	2
56		min	-.103	7	-.08	6	-.313	1	-1.063e-2	3	1947.311	1	1340.762	5
57		max	.104	2	.081	1	.221	6	3.451e-3	6	NC	2	NC	4
58		min	-.103	7	-.081	6	-.312	1	-6.957e-3	1	1282.778	1	2297.074	7
59		max	.104	2	.082	1	.222	6	4.431e-3	6	NC	2	NC	1
60		min	-.103	7	-.081	6	-.312	1	-4.806e-3	1	954.965	1	NC	1
61	7	max	.002	1	.114	7	.077	1	2.15e-3	6	NC	1	NC	1
62		min	-.002	6	-.051	2	-.078	6	-4.53e-3	1	439.088	7	NC	1
63		max	0	1	.025	7	.038	1	8.597e-4	6	NC	11	NC	5
64		min	0	6	-.011	2	-.039	6	-1.811e-3	1	916.798	3	1834.322	6
65		max	0	1	0	1	0	1	0	1	5906.816	11	NC	5
66		min	0	1	0	1	0	1	0	1	707.914	3	924.899	6
67		max	0	6	.025	2	.039	1	8.716e-4	6	NC	10	NC	5
68		min	0	1	-.011	7	-.039	6	-1.688e-3	1	908.954	3	820.413	7
69		max	.002	6	.112	2	.079	1	2.178e-3	6	NC	1	NC	1
70		min	-.002	1	-.05	7	-.079	6	-4.218e-3	1	441.082	2	593.891	7
71	8	max	.068	1	.071	7	.213	2	4.201e-3	2	NC	1	NC	1
72		min	-.066	6	-.074	2	-.302	7	-4.585e-3	7	NC	1	1578.017	2
73		max	.068	1	.073	7	.213	2	7.894e-4	2	NC	1	NC	10
74		min	-.066	6	-.075	2	-.302	7	-8.942e-3	9	3935.531	7	1565.779	2
75		max	.068	1	.074	7	.21	2	-2.622e-3	2	NC	1	5291.017	2
76		min	-.066	6	-.075	2	-.301	7	-1.624e-2	9	1940.908	7	1226.217	11
77		max	.068	1	.076	7	.208	2	6.993e-4	2	NC	1	NC	2
78		min	-.066	6	-.076	2	-.299	7	-9.11e-3	9	1276.912	7	623.807	1
79		max	.068	1	.077	7	.209	2	4.057e-3	2	NC	1	NC	2
80		min	-.066	6	-.076	2	-.298	7	-4.613e-3	7	947.389	7	565.634	1
81	9	max	.002	7	.121	6	.088	7	2.191e-3	1	NC	1	NC	1
82		min	-.002	2	-.058	1	-.089	2	-4.501e-3	6	566.842	6	2373.776	2
83		max	0	7	.027	6	.042	7	8.764e-4	1	NC	10	NC	1
84		min	0	2	-.013	1	-.043	2	-1.801e-3	6	1005.165	9	4202.242	7
85		max	0	1	0	1	0	1	0	1	NC	6	NC	1
86		min	0	1	0	1	0	1	0	1	782.884	9	1212.459	7
87		max	0	1	.026	7	.037	6	1.1e-3	2	NC	5	NC	4
88		min	0	6	-.012	2	-.037	1	-1.899e-3	7	992.187	1	1970.954	6
89		max	.002	1	.119	7	.078	6	2.751e-3	2	NC	4	NC	2
90		min	-.002	6	-.057	2	-.078	1	-4.749e-3	7	572.688	1	927.506	6
91	10	max	.243	2	.252	1	.214	2	2.365e-3	6	NC	1	NC	1
92		min	-.241	7	-.259	6	-.302	7	-1.301e-3	1	1752.402	9	384.645	7
93		max	.243	2	.574	1	.076	1	2.219e-2	6	NC	4	NC	5
94		min	-.241	7	-.585	6	-.161	6	-2.171e-2	1	598.676	6	640.967	6
95		max	.244	2	.665	1	.064	1	1.983e-2	6	NC	5	NC	5
96		min	-.24	7	-.662	6	-.136	6	-1.984e-2	1	456.858	6	519.928	1
97		max	.244	2	.494	1	.072	1	1.236e-2	6	NC	5	NC	5
98		min	-.24	7	-.489	6	-.152	6	-1.261e-2	1	523.79	2	645.926	2
99		max	.245	2	.254	1	.216	7	3.807e-3	6	NC	1	NC	1
100		min	-.239	7	-.248	6	-.307	2	-3.593e-3	1	389.225	2	391.606	2
101	11	max	.201	1	.215	7	.21	7	2.697e-3	2	NC	1	NC	1
102		min	-.2	6	-.221	2	-.301	2	-2.316e-3	7	1758.231	10	1532.767	10
103		max	.202	1	.474	7	.119	7	1.756e-2	2	NC	5	NC	11
104		min	-.2	6	-.484	2	-.207	2	-1.721e-2	7	726.5	2	902.619	2
105		max	.203	1	.578	7	.063	7	1.765e-2	2	NC	3	NC	8
106		min	-.2	6	-.576	2	-.135	2	-1.763e-2	7	552.871	2	630.316	7



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Envelope Member Section Deflections (Continued)

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC	
107	4	max	.203	1	.464	7	.09	6	1.234e-2	2	NC	8	NC	3	
108		min	-.2	6	-.46	2	-.171	1	-1.254e-2	7	979.58	2	916.392	7	
109	5	max	.204	1	.265	7	.222	6	3.292e-3	2	NC	1	NC	1	
110		min	-.2	6	-.26	2	-.312	1	-3.066e-3	7	1507.785	3	1723.874	5	
111	12	1	max	.198	6	.257	2	.22	6	2.058e-3	1	NC	1	NC	1
112		min	-.198	1	-.263	7	-.311	1	-1.686e-3	6	1767.743	5	1535.271	5	
113	2	max	.198	6	.532	2	.09	6	2.107e-2	7	NC	8	NC	10	
114		min	-.197	1	-.541	7	-.177	1	-2.074e-2	2	716.105	7	687.841	7	
115	3	max	.198	6	.59	2	.059	2	1.729e-2	7	NC	8	NC	10	
116		min	-.196	1	-.586	7	-.131	7	-1.738e-2	2	528.111	7	620.12	2	
117	4	max	.198	6	.434	2	.115	2	1.003e-2	7	NC	8	NC	8	
118		min	-.195	1	-.426	7	-.194	7	-1.035e-2	2	853.583	7	1181.216	2	
119	5	max	.198	6	.223	2	.209	2	3.933e-3	7	NC	1	NC	1	
120		min	-.194	1	-.216	7	-.297	7	-3.042e-3	2	1597.636	11	1723.725	11	
121	13	1	max	.211	6	.231	2	.21	7	5.482e-3	7	NC	1	NC	2
122		min	-.218	1	-.227	7	-.301	2	-6.16e-3	2	324.078	2	728.033	6	
123	2	max	.211	6	.226	2	.211	7	3.506e-3	7	NC	4	NC	5	
124		min	-.219	1	-.222	7	-.303	2	-7.193e-3	2	436.949	2	905.606	6	
125	3	max	.211	6	.221	2	.213	7	1.531e-3	7	NC	4	8377.512	10	
126		min	-.219	1	-.218	7	-.306	2	-1.037e-2	4	514.921	1	1765.407	6	
127	4	max	.211	6	.217	2	.216	7	3.092e-3	7	NC	4	NC	6	
128		min	-.219	1	-.213	7	-.308	2	-6.74e-3	2	343.39	1	1008.911	7	
129	5	max	.211	6	.212	2	.216	7	4.653e-3	7	NC	2	NC	1	
130		min	-.219	1	-.209	7	-.307	2	-5.254e-3	2	255.839	1	897.458	7	
131	14	1	max	.292	2	.231	1	.22	6	4.804e-3	6	NC	1	NC	1
132		min	-.298	7	-.228	6	-.311	1	-5.494e-3	1	NC	1	462.305	2	
133	2	max	.292	2	.231	1	.221	6	3.143e-3	6	NC	1	NC	5	
134		min	-.298	7	-.228	6	-.312	1	-6.834e-3	1	7592.726	6	621.024	2	
135	3	max	.292	2	.232	1	.22	6	1.485e-3	6	NC	2	NC	6	
136		min	-.298	7	-.229	6	-.312	1	-1.044e-2	3	3544.644	6	1214.361	2	
137	4	max	.292	2	.233	1	.221	6	3.066e-3	6	NC	2	NC	1	
138		min	-.298	7	-.23	6	-.312	1	-6.702e-3	1	2291.799	6	1578.32	7	
139	5	max	.292	2	.233	1	.222	6	4.646e-3	6	NC	2	NC	1	
140		min	-.298	7	-.231	6	-.312	1	-5.232e-3	1	1668.935	6	3769.141	6	
141	15	1	max	.219	1	.213	7	.214	2	3.651e-3	2	NC	2	NC	1
142		min	-.226	6	-.21	2	-.302	7	-4.72e-3	7	213.027	6	1152.558	2	
143	2	max	.219	1	.218	7	.214	2	5.667e-4	2	NC	5	NC	1	
144		min	-.226	6	-.215	2	-.302	7	-8.436e-3	9	286.401	6	1155.517	2	
145	3	max	.219	1	.224	7	.212	2	-2.517e-3	2	NC	5	NC	4	
146		min	-.226	6	-.221	2	-.3	7	-1.436e-2	9	430.234	6	2349.658	2	
147	4	max	.219	1	.229	7	.209	2	7.742e-4	2	NC	8	NC	2	
148		min	-.226	6	-.227	2	-.298	7	-8.521e-3	9	334.694	2	1728.24	6	
149	5	max	.219	1	.234	7	.209	2	4.1e-3	2	NC	1	NC	1	
150		min	-.226	6	-.234	2	-.297	7	-5.15e-3	7	249.85	2	NC	1	
151	16	1	max	.302	7	.243	2	.259	6	4.819e-3	6	NC	2	NC	1
152		min	-.214	2	-.241	7	-.252	1	-4.661e-3	1	280.373	6	1755.524	9	
153	2	max	.302	7	.205	2	.225	6	3.383e-3	6	NC	2	NC	4	
154		min	-.214	2	-.201	7	-.224	1	-3.441e-3	1	401.088	6	1559.41	1	
155	3	max	.302	7	.165	2	.173	6	2.082e-3	2	NC	2	NC	3	
156		min	-.213	2	-.161	7	-.173	1	-2.227e-3	7	628.867	7	2108.862	6	
157	4	max	.302	7	.123	2	.118	6	1.187e-3	2	NC	2	NC	1	
158		min	-.213	2	-.12	7	-.118	1	-1.611e-3	7	1148.073	7	NC	1	
159	5	max	.302	7	.079	2	.076	6	2.925e-4	2	NC	1	NC	1	
160		min	-.213	2	-.077	7	-.079	1	-9.957e-4	7	NC	1	NC	1	
161	17	1	max	.307	2	.239	7	.254	1	3.969e-3	1	NC	1	NC	3
162		min	-.216	7	-.245	2	-.248	6	-3.71e-3	6	800.647	4	290.523	1	
163	2	max	.307	2	.198	7	.216	1	2.953e-3	1	NC	2	NC	3	



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Envelope Member Section Deflections (Continued)

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC	
164		min	-.216	7	-.201	2	-.211	6	-2.91e-3	6	1048.799	3	383.313	1	
165	3	max	.307	2	.16	7	.17	1	1.938e-3	1	NC	1	NC	3	
166		min	-.216	7	-.161	2	-.168	6	-2.11e-3	6	1640.693	3	584.46	1	
167	4	max	.307	2	.12	7	.123	1	9.232e-4	1	NC	1	NC	3	
168		min	-.216	7	-.121	2	-.124	6	-1.309e-3	6	3628.757	4	1171.896	2	
169	5	max	.307	2	.078	7	.084	1	-1.439e-5	2	NC	1	NC	1	
170		min	-.215	7	-.078	2	-.085	6	-8.638e-4	8	NC	1	NC	1	
171	18	1	max	.156	6	.241	7	.645	1	3.453e-3	6	NC	1	NC	1
172		min	-.075	1	-.244	2	-.653	6	-3.869e-3	1	850.786	11	1177.519	9	
173	2	max	.156	6	.199	7	.501	1	2.173e-3	6	NC	3	NC	2	
174		min	-.075	1	-.202	2	-.506	6	-2.421e-3	1	1143.292	11	1668.392	9	
175	3	max	.155	6	.157	7	.353	1	8.931e-4	6	NC	3	NC	2	
176		min	-.075	1	-.161	2	-.355	6	-9.728e-4	1	1730.971	11	2723.093	9	
177	4	max	.155	6	.117	7	.199	1	4.793e-4	7	NC	2	NC	2	
178		min	-.074	1	-.12	2	-.197	6	-3.866e-4	6	3483.568	11	5201.313	6	
179	5	max	.155	6	.077	7	.074	2	1.924e-3	1	NC	1	NC	1	
180		min	-.074	1	-.079	2	-.069	7	-1.666e-3	6	2642.13	4	NC	1	
181	19	1	max	.142	6	.244	2	.566	6	5.638e-3	1	NC	7	NC	1
182		min	-.067	1	-.24	7	-.573	1	-5.555e-3	6	94.316	1	344.263	3	
183	2	max	.142	6	.203	2	.434	6	3.686e-3	1	NC	7	NC	1	
184		min	-.067	1	-.198	7	-.437	1	-3.582e-3	6	125.861	1	468.161	3	
185	3	max	.142	6	.161	2	.301	6	1.734e-3	1	NC	7	NC	1	
186		min	-.067	1	-.157	7	-.301	1	-1.609e-3	6	189.113	1	721.539	3	
187	4	max	.142	6	.12	2	.166	6	5.141e-4	7	NC	7	NC	1	
188		min	-.067	1	-.117	7	-.165	1	-4.084e-4	2	378.495	1	1466.496	3	
189	5	max	.143	6	.078	2	.071	2	2.337e-3	6	NC	1	NC	1	
190		min	-.067	1	-.078	7	-.069	7	-2.171e-3	1	NC	1	NC	1	
191	20	1	max	.106	6	.279	6	.268	7	5.584e-3	6	NC	1	NC	1
192		min	-.051	1	-.227	1	-.227	2	-4.662e-3	1	2131.169	5	226.675	2	
193	2	max	.104	6	.268	6	.222	7	6.455e-3	6	NC	7	NC	1	
194		min	-.05	1	-.212	1	-.173	2	-5.638e-3	1	1669.756	6	308.579	2	
195	3	max	.101	6	.242	6	.167	7	7.325e-3	6	NC	9	NC	1	
196		min	-.048	1	-.187	1	-.115	2	-6.615e-3	1	1103.395	6	486.301	2	
197	4	max	.099	6	.191	6	.103	7	8.196e-3	6	NC	9	NC	1	
198		min	-.047	1	-.143	1	-.052	2	-7.591e-3	1	1342.385	2	1083.813	2	
199	5	max	.097	6	.134	7	.078	8	7.031e-3	6	NC	1	NC	1	
200		min	-.046	1	-.093	2	-.012	1	-5.95e-3	1	735.506	2	NC	1	
201	21	1	max	.099	6	.252	6	.314	7	5.765e-3	1	NC	1	NC	1
202		min	-.048	1	-.258	1	-.389	2	-5.747e-3	6	2315.707	5	NC	1	
203	2	max	.097	6	.231	6	.259	7	6.768e-3	1	NC	3	NC	8	
204		min	-.047	1	-.242	1	-.343	2	-6.712e-3	6	3451.61	5	1183.127	1	
205	3	max	.095	6	.189	6	.198	7	7.771e-3	1	NC	3	NC	8	
206		min	-.046	1	-.202	1	-.285	2	-7.676e-3	6	3205.33	6	842.978	1	
207	4	max	.093	6	.121	6	.132	7	8.773e-3	1	NC	3	NC	8	
208		min	-.045	1	-.129	1	-.21	2	-8.641e-3	6	4498.709	6	1183.127	1	
209	5	max	.09	6	.071	2	.062	7	9.776e-3	1	NC	1	NC	1	
210		min	-.044	1	-.069	7	-.122	2	-9.605e-3	6	NC	1	NC	1	
211	22	1	max	.312	1	.2	6	.265	7	3.791e-3	7	NC	2	NC	1
212		min	-.222	6	-.204	1	-.26	2	-3.61e-3	2	628.675	9	530.076	7	
213	2	max	.312	1	.166	6	.227	7	2.484e-3	7	NC	4	NC	1	
214		min	-.222	6	-.168	1	-.223	2	-2.495e-3	2	813.813	9	662.791	7	
215	3	max	.312	1	.136	6	.177	7	1.177e-3	7	NC	2	NC	1	
216		min	-.222	6	-.137	1	-.175	2	-1.38e-3	2	1267.12	9	1076.996	7	
217	4	max	.312	1	.104	6	.125	7	5.353e-4	6	NC	2	NC	1	
218		min	-.222	6	-.105	1	-.127	2	-9.308e-4	1	2854.777	9	2695.066	2	
219	5	max	.312	1	.069	6	.087	7	8.5e-4	2	NC	1	NC	1	
220		min	-.222	6	-.07	1	-.088	2	-1.437e-3	7	NC	1	NC	1	



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Envelope Member Section Deflections (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC
221	23	1	max	.175	2	.2	6	.535	7	3.492e-3	2	NC	1	NC	1
222			min	-.091	7	-.202	1	-.543	2	-3.889e-3	7	878.32	10	467.578	8
223		2	max	.175	2	.168	6	.427	7	2.272e-3	2	NC	2	NC	3
224			min	-.091	7	-.17	1	-.432	2	-2.511e-3	7	956.18	1	627.977	8
225		3	max	.175	2	.135	6	.316	7	1.051e-3	2	NC	2	NC	5
226			min	-.091	7	-.138	1	-.319	2	-1.132e-3	7	469.228	1	953.736	8
227		4	max	.174	2	.102	6	.201	7	7.454e-4	6	NC	2	NC	3
228			min	-.091	7	-.105	1	-.201	2	-6.401e-4	1	303.992	1	1909.555	8
229		5	max	.174	2	.07	6	.084	7	1.624e-3	7	NC	2	NC	1
230			min	-.091	7	-.071	1	-.08	2	-1.389e-3	2	222.718	1	NC	1
231	24	1	max	.13	1	.203	1	.518	2	4.095e-3	7	NC	3	NC	1
232			min	-.055	6	-.2	6	-.524	7	-3.993e-3	2	80.664	7	187.215	6
233		2	max	.13	1	.171	1	.384	2	2.58e-3	7	NC	3	NC	1
234			min	-.055	6	-.167	6	-.387	7	-2.475e-3	2	107.609	7	249.756	6
235		3	max	.13	1	.138	1	.249	2	1.066e-3	7	NC	1	NC	1
236			min	-.055	6	-.135	6	-.25	7	-9.563e-4	2	161.623	7	376.851	6
237		4	max	.13	1	.104	1	.115	1	5.621e-4	2	NC	1	NC	1
238			min	-.054	6	-.102	6	-.113	7	-4.491e-4	7	323.315	7	751.855	6
239		5	max	.13	3	.069	1	.079	1	2.081e-3	2	NC	1	NC	1
240			min	-.054	6	-.069	6	-.077	6	-1.964e-3	7	NC	1	NC	1
241	25	1	max	.103	1	.383	2	.281	6	4.7e-3	2	NC	1	NC	2
242			min	-.047	6	-.328	7	-.237	1	-4.366e-3	7	NC	1	298.731	1
243		2	max	.101	1	.357	2	.233	6	5.142e-3	2	NC	5	NC	5
244			min	-.046	6	-.298	7	-.181	1	-4.765e-3	7	2318.964	7	412.739	1
245		3	max	.099	1	.316	2	.172	6	5.584e-3	2	NC	5	NC	6
246			min	-.044	6	-.259	7	-.117	1	-5.163e-3	7	1537.966	7	670.804	1
247		4	max	.096	1	.255	2	.096	6	6.026e-3	2	NC	5	NC	2
248			min	-.042	6	-.205	7	-.043	1	-5.562e-3	7	1899.939	7	1603.932	1
249		5	max	.094	1	.179	2	.08	4	5.223e-3	2	NC	1	NC	1
250			min	-.041	6	-.136	7	-.016	7	-4.192e-3	7	NC	1	NC	1
251	26	1	max	.127	2	.263	2	.293	6	5.288e-3	7	NC	1	NC	1
252			min	-.076	7	-.267	7	-.366	1	-5.327e-3	2	2294.928	11	502.672	6
253		2	max	.124	2	.224	2	.241	6	6.402e-3	7	NC	5	NC	4
254			min	-.074	7	-.234	7	-.324	1	-6.408e-3	2	3422.336	11	727.691	6
255		3	max	.121	2	.165	2	.189	6	7.517e-3	7	NC	5	NC	4
256			min	-.072	7	-.178	7	-.275	1	-7.489e-3	2	4026.135	1	787.143	7
257		4	max	.118	2	.093	1	.138	6	8.631e-3	7	NC	5	NC	4
258			min	-.07	7	-.099	6	-.215	1	-8.569e-3	2	5650.716	1	1104.763	7
259		5	max	.115	2	.082	1	.086	6	9.746e-3	7	NC	1	NC	1
260			min	-.068	7	-.079	6	-.147	1	-9.65e-3	2	NC	1	NC	1
261	27	1	max	.297	7	.194	1	.223	2	4.545e-3	6	NC	2	NC	1
262			min	-.209	2	-.198	6	-.216	7	-4.365e-3	1	224.556	1	860.894	9
263		2	max	.298	7	.164	1	.19	2	3.175e-3	6	NC	4	NC	1
264			min	-.209	2	-.164	6	-.18	7	-3.217e-3	1	293.287	1	1431.852	9
265		3	max	.298	7	.133	1	.147	2	2.228e-3	2	NC	2	NC	1
266			min	-.209	2	-.134	6	-.142	7	-2.368e-3	7	449.789	1	1969.189	9
267		4	max	.298	7	.101	1	.102	2	1.302e-3	2	NC	2	NC	1
268			min	-.209	2	-.103	6	-.103	7	-1.728e-3	7	968.766	1	2901.032	9
269		5	max	.298	7	.07	1	.064	2	3.771e-4	2	NC	1	NC	1
270			min	-.209	2	-.07	6	-.066	7	-1.088e-3	7	NC	1	NC	1
271	28	1	max	.143	3	.197	1	.593	2	2.433e-3	7	NC	1	NC	1
272			min	-.052	6	-.198	6	-.598	7	-2.848e-3	2	499.652	3	1943.941	10
273		2	max	.143	3	.163	1	.448	2	1.69e-3	1	NC	1	NC	1
274			min	-.052	6	-.165	6	-.451	7	-1.874e-3	6	666.599	3	2633.395	10
275		3	max	.143	3	.13	1	.3	2	1.039e-3	1	NC	1	NC	1
276			min	-.052	6	-.133	6	-.3	7	-1.082e-3	6	1001.896	3	3750.415	7
277		4	max	.143	3	.099	1	.145	2	6.761e-4	2	NC	1	NC	1



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Envelope Member Section Deflections (Continued)

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC
278		min	-.052	6	-.101	6	-.142	7	-5.995e-4	7	2002.876	3	5180.518	7
279	5	max	.142	3	.068	1	.077	6	1.851e-3	2	NC	1	NC	1
280		min	-.053	6	-.069	6	-.073	1	-1.61e-3	7	NC	1	NC	1
281	29	1	max	.162	.198	6	.493	7	4.903e-3	2	NC	3	NC	1
282		min	-.088	2	-.195	1	-.501	2	-4.829e-3	7	108.739	6	425.528	4
283	2	max	.162	7	.165	6	.39	7	3.28e-3	2	NC	3	NC	2
284		min	-.088	2	-.162	1	-.394	2	-3.174e-3	7	145.003	6	579.801	4
285	3	max	.162	7	.133	6	.286	7	1.657e-3	2	NC	3	NC	2
286		min	-.088	2	-.13	1	-.287	2	-1.519e-3	7	217.698	6	490.2	6
287	4	max	.162	7	.101	6	.181	7	6.835e-4	1	NC	3	NC	2
288		min	-.088	2	-.099	1	-.179	2	-5.532e-4	6	435.195	6	324.246	6
289	5	max	.162	7	.069	6	.074	7	1.791e-3	7	NC	1	NC	2
290		min	-.088	2	-.069	1	-.072	2	-1.588e-3	2	NC	1	239.091	1
291	30	1	max	.135	.343	1	.274	2	4.163e-3	7	NC	1	NC	1
292		min	-.08	2	-.288	6	-.23	7	-3.757e-3	2	2059.941	10	283.77	6
293	2	max	.132	7	.307	1	.228	2	5.479e-3	7	NC	3	NC	2
294		min	-.078	2	-.248	6	-.176	7	-5.049e-3	2	1773.154	7	381.569	6
295	3	max	.129	7	.262	1	.166	2	6.795e-3	7	NC	3	NC	2
296		min	-.076	2	-.204	6	-.111	7	-6.341e-3	2	1163.014	7	593.001	6
297	4	max	.127	7	.209	1	.087	4	8.111e-3	7	NC	3	NC	1
298		min	-.074	2	-.158	6	-.031	7	-7.633e-3	2	1426.262	7	1300.149	6
299	5	max	.124	7	.159	1	.077	9	7.304e-3	7	NC	1	NC	1
300		min	-.072	2	-.115	6	-.013	2	-6.248e-3	2	NC	1	NC	1
301	31	1	max	.095	.215	7	.252	2	5.312e-3	2	NC	1	NC	1
302		min	-.044	6	-.224	2	-.324	7	-5.645e-3	7	1122.471	4	4059.144	7
303	2	max	.092	1	.199	7	.202	2	5.986e-3	2	NC	1	NC	7
304		min	-.043	6	-.213	2	-.284	7	-6.172e-3	7	1514.312	4	1486.913	6
305	3	max	.09	1	.172	7	.159	2	6.659e-3	2	NC	1	5612.322	3
306		min	-.041	6	-.186	2	-.244	7	-6.698e-3	7	2301.526	4	1059.426	6
307	4	max	.087	1	.128	7	.127	2	7.333e-3	2	NC	1	7876.943	3
308		min	-.04	6	-.137	2	-.204	7	-7.225e-3	7	4201.409	7	1486.913	6
309	5	max	.085	1	.074	7	.103	2	8.006e-3	2	NC	2	NC	1
310		min	-.039	6	-.072	2	-.163	7	-7.751e-3	7	8868.319	1	NC	1
311	32	1	max	.075	.075	6	.306	2	1.231e-3	1	NC	1	NC	1
312		min	-.076	7	-.074	1	-.213	7	-1.007e-3	6	NC	1	NC	1
313	2	max	.075	2	.073	6	.348	2	3.524e-4	2	NC	1	NC	1
314		min	-.076	7	-.074	1	-.223	7	6.835e-6	7	4696.749	4	3745.983	4
315	3	max	.075	2	.071	6	.388	2	1.541e-3	6	NC	1	NC	1
316		min	-.076	7	-.075	1	-.232	7	-9.596e-4	1	2315.288	4	1863.361	4
317	4	max	.075	2	.068	6	.426	2	2.816e-3	6	NC	1	NC	1
318		min	-.076	7	-.076	1	-.242	7	-2.055e-3	1	1529.098	4	1861.299	4
319	5	max	.075	2	.066	6	.457	2	4.09e-3	6	NC	1	NC	1
320		min	-.076	7	-.076	1	-.251	7	-3.151e-3	1	1141.424	4	NC	1
321	33	1	max	.079	.104	2	.313	1	1.787e-3	7	NC	1	NC	1
322		min	-.08	6	-.103	7	-.221	6	-1.602e-3	2	NC	1	NC	1
323	2	max	.079	1	.108	2	.355	1	3.635e-4	3	NC	2	NC	2
324		min	-.08	6	-.11	7	-.232	6	8.03e-5	6	3688.716	1	3723.674	3
325	3	max	.079	1	.112	2	.396	1	1.876e-3	2	NC	2	NC	6
326		min	-.08	6	-.117	7	-.242	6	-1.316e-3	7	1821.692	1	1856.098	3
327	4	max	.079	1	.116	2	.434	1	3.614e-3	2	NC	2	NC	6
328		min	-.08	6	-.123	7	-.251	6	-2.868e-3	7	1201.329	1	1855.947	3
329	5	max	.079	1	.12	2	.466	1	5.353e-3	2	NC	2	NC	1
330		min	-.08	6	-.13	7	-.261	6	-4.42e-3	7	892.544	1	NC	1
331	34	1	max	.12	.076	6	.464	1	2.882e-3	6	NC	1	NC	1
332		min	-.13	7	-.068	1	-.266	6	-4.791e-3	1	903.768	7	232.277	7
333	2	max	.12	2	.078	6	.465	1	2.638e-3	6	NC	1	NC	1
334		min	-.13	7	-.074	1	-.264	6	-5.303e-3	1	1197.874	7	322.475	7



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Envelope Member Section Deflections (Continued)

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC	
335	3	max	.12	2	.08	6	.466	1	2.27e-3	6	NC	1	NC	9	
336		min	-.13	7	-.079	1	-.261	6	-6.339e-3	3	2015.849	7	526.059	7	
337	4	max	.12	2	.083	6	.469	1	2.031e-3	6	NC	1	NC	9	
338		min	-.13	7	-.084	1	-.259	6	-4.595e-3	1	2424.769	6	639.206	4	
339	5	max	.12	2	.088	6	.472	1	1.872e-3	6	NC	1	NC	2	
340		min	-.13	7	-.09	1	-.257	6	-3.608e-3	1	1511.374	6	473.793	4	
341	35	1	max	.073	1	.063	7	.148	2	-1.159e-4	2	NC	1	NC	2
342		min	-.085	6	-.072	2	-.468	9	-7.143e-3	9	1141.437	4	404.581	1	
343	2	max	.073	1	.069	7	.152	2	-9.123e-4	2	NC	1	NC	4	
344		min	-.085	6	-.074	2	-.472	9	-8.637e-3	9	1687.113	4	552.382	1	
345	3	max	.073	1	.074	7	.155	2	-2.108e-3	2	NC	1	NC	7	
346		min	-.085	6	-.075	2	-.478	9	-1.088e-2	9	1633.835	7	872.761	1	
347	4	max	.073	1	.08	7	.156	2	-2.124e-3	2	NC	1	NC	7	
348		min	-.085	6	-.078	2	-.488	9	-8.289e-3	9	1091.505	7	803.925	3	
349	5	max	.073	1	.086	7	.155	2	-1.839e-3	10	NC	3	NC	1	
350		min	-.085	6	-.082	2	-.497	9	-6.537e-3	9	774.902	7	559.989	3	
351	36	1	max	.066	6	.076	2	.273	7	2.896e-3	7	NC	1	NC	1
352		min	-.076	1	-.085	7	-.474	2	-4.809e-3	2	1389.474	7	429.938	7	
353	2	max	.066	6	.075	2	.262	7	2.597e-3	7	NC	1	NC	1	
354		min	-.076	1	-.08	7	-.465	2	-5.27e-3	2	2200.565	7	580.766	7	
355	3	max	.066	6	.075	2	.251	7	2.149e-3	7	NC	1	NC	4	
356		min	-.076	1	-.076	7	-.457	2	-6.225e-3	4	4022.65	7	913.414	7	
357	4	max	.066	6	.075	2	.24	7	1.841e-3	7	NC	2	NC	3	
358		min	-.076	1	-.074	7	-.451	2	-4.424e-3	2	7492.776	1	789.125	8	
359	5	max	.066	6	.074	2	.231	7	1.636e-3	7	NC	2	NC	1	
360		min	-.076	1	-.072	7	-.447	2	-3.397e-3	2	3220.055	1	577.681	8	
361	37	1	max	.074	7	.068	1	.301	7	2.603e-3	6	NC	1	NC	3
362		min	-.075	2	-.066	6	-.21	2	-2.209e-3	1	NC	1	241.141	1	
363	2	max	.074	7	.07	1	.341	7	1.626e-3	6	NC	1	NC	11	
364		min	-.075	2	-.071	6	-.196	2	-1.02e-3	1	3848.768	8	327.686	1	
365	3	max	.074	7	.071	1	.381	7	1.003e-3	8	NC	2	4488.87	11	
366		min	-.075	2	-.075	6	-.181	2	1.69e-4	1	1898.774	8	524.015	1	
367	4	max	.074	7	.072	1	.42	9	1.358e-3	1	NC	2	4195.383	11	
368		min	-.075	2	-.08	6	-.167	2	-3.26e-4	6	1254.104	8	1179.494	1	
369	5	max	.074	7	.073	1	.478	9	2.547e-3	1	NC	2	NC	1	
370		min	-.075	2	-.085	6	-.155	2	-1.302e-3	6	935.572	8	NC	1	
371	38	1	max	.221	2	.211	6	.306	2	1.364e-3	1	NC	5	NC	2
372		min	-.218	7	-.219	1	-.213	7	-1.151e-3	6	297.335	1	3169.606	1	
373	2	max	.221	2	.196	6	.344	2	4.283e-4	2	NC	5	NC	1	
374		min	-.218	7	-.203	1	-.219	7	-7.862e-5	7	404.617	1	477.714	2	
375	3	max	.221	2	.182	6	.383	2	1.286e-3	6	NC	5	5495.369	11	
376		min	-.218	7	-.187	1	-.226	7	-7.111e-4	1	615.998	1	235.653	2	
377	4	max	.221	2	.169	6	.422	2	2.505e-3	6	NC	5	5477.346	11	
378		min	-.218	7	-.172	1	-.238	7	-1.749e-3	1	1243.124	1	155.5	2	
379	5	max	.222	2	.156	6	.462	2	3.724e-3	6	NC	1	NC	1	
380		min	-.218	7	-.158	1	-.256	7	-2.786e-3	1	7051.492	11	115.786	2	
381	39	1	max	.232	1	.292	2	.312	1	1.902e-3	7	NC	1	NC	1
382		min	-.229	6	-.298	7	-.22	6	-1.729e-3	2	335.075	7	NC	1	
383	2	max	.232	1	.278	2	.35	1	4.365e-4	7	NC	3	NC	2	
384		min	-.229	6	-.283	7	-.226	6	-7.425e-5	2	464.685	7	479.752	1	
385	3	max	.232	1	.265	2	.388	1	1.581e-3	2	NC	3	6742.513	2	
386		min	-.229	6	-.269	7	-.234	6	-1.029e-3	7	719.25	7	236.163	1	
387	4	max	.232	1	.254	2	.428	1	3.236e-3	2	NC	3	6368.466	2	
388		min	-.229	6	-.256	7	-.245	6	-2.494e-3	7	1471.366	7	155.528	1	
389	5	max	.232	1	.242	2	.468	1	4.89e-3	2	NC	2	NC	2	
390		min	-.23	6	-.244	7	-.263	6	-3.959e-3	7	1356.721	6	115.587	1	
391	40	1	max	.242	2	.223	6	.464	1	5.499e-3	6	NC	1	NC	1



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Envelope Member Section Deflections (Continued)

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC	
392		min	-.244	7	-.23	1	-.265	6	-7.401e-3	1	1451.919	9	2670.806	9	
393	2	max	.242	2	.226	6	.466	1	5.347e-3	6	NC	1	NC	1	
394		min	-.244	7	-.231	1	-.265	6	-8.004e-3	1	1975.635	2	935.481	2	
395	3	max	.242	2	.23	6	.468	1	5.119e-3	6	NC	4	NC	1	
396		min	-.244	7	-.232	1	-.263	6	-8.91e-3	1	916.491	2	459.16	2	
397	4	max	.242	2	.235	6	.47	1	7.296e-3	6	NC	3	NC	1	
398		min	-.244	7	-.238	1	-.26	6	-9.853e-3	1	582.637	2	277.041	2	
399	5	max	.242	2	.242	6	.472	1	8.75e-3	6	NC	5	NC	1	
400		min	-.244	7	-.246	1	-.257	6	-1.048e-2	1	436.773	2	180.268	2	
401	41	1	max	.15	1	.201	7	.147	2	6.148e-3	2	NC	1	NC	1
402		min	-.152	6	-.194	2	-.468	9	-4.601e-3	7	387.501	6	NC	1	
403	2	max	.15	1	.211	7	.15	2	2.259e-3	2	NC	1	NC	1	
404		min	-.152	6	-.205	2	-.473	9	-6.326e-3	9	547.251	6	2823.187	2	
405	3	max	.15	1	.224	7	.15	2	-3.583e-3	2	NC	1	NC	4	
406		min	-.152	6	-.222	2	-.481	9	-1.669e-2	9	720.41	7	941.154	6	
407	4	max	.15	1	.25	7	.149	2	9.411e-3	2	NC	4	NC	5	
408		min	-.152	6	-.248	2	-.49	9	-1.294e-2	7	375.356	7	487.298	2	
409	5	max	.15	1	.277	7	.162	2	1.817e-2	2	NC	1	NC	4	
410		min	-.152	6	-.272	2	-.497	9	-1.612e-2	7	229.136	7	401.904	2	
411	42	1	max	.156	6	.247	2	.273	7	6.119e-3	7	NC	1	NC	1
412		min	-.158	1	-.241	7	-.474	2	-8.026e-3	2	453.27	2	3753.683	5	
413	2	max	.156	6	.234	2	.265	7	5.682e-3	7	NC	3	NC	2	
414		min	-.158	1	-.23	7	-.467	2	-8.348e-3	2	658.151	7	1380.449	6	
415	3	max	.156	6	.222	2	.256	7	5.026e-3	7	NC	4	NC	3	
416		min	-.158	1	-.218	7	-.462	2	-8.831e-3	2	670.659	1	648.589	6	
417	4	max	.156	6	.213	2	.244	7	6.74e-3	7	NC	3	NC	3	
418		min	-.158	1	-.209	7	-.455	2	-9.317e-3	2	425.646	1	376.408	6	
419	5	max	.156	6	.207	2	.229	7	7.884e-3	7	NC	2	NC	2	
420		min	-.158	1	-.202	7	-.444	2	-9.642e-3	2	312.123	1	237.281	6	
421	43	1	max	.223	7	.219	1	.3	7	3.187e-3	6	NC	4	NC	1
422		min	-.221	2	-.226	6	-.212	2	-2.72e-3	1	243.487	6	NC	1	
423	2	max	.224	7	.201	1	.334	7	2.548e-3	6	NC	4	7794.398	1	
424		min	-.221	2	-.206	6	-.199	2	-1.836e-3	1	331.022	6	265.282	9	
425	3	max	.224	7	.183	1	.37	7	1.909e-3	6	NC	4	7427.364	1	
426		min	-.221	2	-.187	6	-.183	2	-9.514e-4	1	504.224	6	128.306	9	
427	4	max	.224	7	.166	1	.406	7	1.58e-3	8	NC	4	NC	1	
428		min	-.221	2	-.169	6	-.166	2	-6.728e-5	1	1019.686	6	83.583	9	
429	5	max	.224	7	.149	1	.481	9	1.899e-3	9	NC	1	NC	1	
430		min	-.222	2	-.152	6	-.15	2	-7.153e-5	2	4909.745	5	61.823	9	
431	44	1	max	.464	1	.471	6	.495	7	2.336e-3	7	NC	2	NC	1
432		min	-.265	6	-.545	1	-.511	2	-1.978e-3	2	154.701	1	185.06	2	
433	2	max	.464	1	.33	6	.343	7	2.336e-3	7	NC	8	NC	1	
434		min	-.265	6	-.367	1	-.349	2	-1.978e-3	2	238.969	1	300.186	2	
435	3	max	.464	1	.208	6	.233	7	2.057e-3	7	5801.963	11	NC	1	
436		min	-.265	6	-.21	1	-.23	2	-1.794e-3	2	462.858	1	553.729	2	
437	4	max	.464	1	.122	6	.179	7	5.013e-4	6	NC	2	NC	1	
438		min	-.265	6	-.123	1	-.173	2	-8.422e-4	1	955.378	1	931.35	2	
439	5	max	.464	1	.059	6	.102	7	4.306e-4	6	NC	1	NC	1	
440		min	-.265	6	-.041	1	-.089	2	-1.205e-3	1	NC	1	NC	1	
441	45	1	max	.471	1	.906	6	1.024	7	2.069e-3	7	NC	7	NC	1
442		min	-.258	6	-.972	1	-1.056	2	-2.23e-3	2	86.213	1	81.387	2	
443	2	max	.471	1	.481	6	.508	7	2.069e-3	7	NC	10	NC	1	
444		min	-.258	6	-.513	1	-.522	2	-2.23e-3	2	174.877	1	183.719	2	
445	3	max	.471	1	.215	6	.224	7	1.835e-3	7	NC	9	NC	1	
446		min	-.258	6	-.215	1	-.22	2	-2.004e-3	2	529.158	1	634.168	2	
447	4	max	.471	1	.117	6	.159	7	1.216e-3	6	NC	7	NC	1	
448		min	-.258	6	-.123	1	-.154	2	-1.426e-3	1	1400.051	1	1375.729	2	



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Envelope Member Section Deflections (Continued)

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...]	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC	
449	5	max	.471	1	.076	6	.113	7	1.005e-3	6	NC	1	NC	1	
450		min	-.258	6	-.067	1	-.097	2	-1.257e-3	1	NC	1	NC	1	
451	46	1	max	.469	9	.464	6	.422	7	2.292e-3	2	NC	8	NC	5
452			min	-.149	2	-.504	1	-.454	2	-2.083e-3	7	180.828	1	200.546	7
453		2	max	.469	9	.306	6	.297	7	2.292e-3	2	NC	8	NC	3
454			min	-.149	2	-.322	1	-.308	2	-2.083e-3	7	313.477	1	296.249	7
455		3	max	.469	9	.19	6	.19	7	2.138e-3	2	8343.812	3	9121.435	10
456			min	-.149	2	-.182	1	-.181	2	-2.017e-3	7	637.721	6	498.078	7
457		4	max	.469	9	.133	6	.118	7	1.134e-3	2	NC	2	5588.185	10
458			min	-.149	2	-.113	1	-.098	2	-1.588e-3	7	1202.136	6	921.016	7
459		5	max	.469	9	.068	6	.033	7	4.385e-4	2	NC	1	NC	1
460			min	-.149	2	-.073	1	-.073	2	-1.291e-3	7	NC	1	1899.039	8
461	47	1	max	.495	9	.839	6	1.361	7	4.316e-3	2	NC	9	NC	11
462			min	-.155	2	-.884	1	-1.412	2	-5.154e-3	7	97.342	1	59.209	2
463		2	max	.495	9	.421	6	.671	7	4.316e-3	2	NC	10	NC	3
464			min	-.155	2	-.44	1	-.693	2	-5.154e-3	7	218.596	1	128.334	7
465		3	max	.495	9	.164	6	.216	7	4.043e-3	2	NC	4	7778.918	1
466			min	-.156	2	-.156	1	-.208	2	-4.856e-3	7	1029.715	6	510.224	7
467		4	max	.494	9	.107	6	.099	7	2.27e-3	2	NC	1	5279.412	10
468			min	-.155	2	-.087	1	-.07	2	-2.92e-3	7	2991.151	8	919.243	9
469		5	max	.494	9	.088	6	.063	7	1.042e-3	2	NC	1	NC	1
470			min	-.155	2	-.083	1	-.095	2	-1.579e-3	7	NC	1	NC	1
471	48	1	max	.471	2	.401	6	.577	7	2.81e-3	2	NC	3	NC	9
472			min	-.27	7	-.349	1	-.635	2	-2.551e-3	7	219.337	6	132.987	2
473		2	max	.471	2	.277	6	.379	7	2.81e-3	2	NC	3	NC	9
474			min	-.27	7	-.253	1	-.409	2	-2.551e-3	7	336.341	6	216.561	2
475		3	max	.471	2	.173	6	.223	7	2.598e-3	2	7950.331	5	NC	1
476			min	-.27	7	-.175	1	-.226	2	-2.429e-3	7	610.99	6	440.113	2
477		4	max	.471	2	.119	6	.132	7	1.226e-3	1	NC	3	NC	5
478			min	-.27	7	-.124	1	-.136	2	-1.638e-3	7	1055.981	6	894.866	2
479		5	max	.471	2	.045	6	.058	7	2.868e-4	1	NC	1	NC	1
480			min	-.27	7	-.066	1	-.049	2	-1.279e-3	8	NC	1	NC	1
481	49	1	max	.448	2	1.061	6	.873	7	3.354e-3	1	NC	5	NC	11
482			min	-.234	7	-1	1	-.917	2	-3.447e-3	6	77.756	6	90.8	2
483		2	max	.448	2	.506	6	.451	7	3.354e-3	1	NC	5	NC	5
484			min	-.234	7	-.478	1	-.475	2	-3.447e-3	6	174.1	6	187.313	2
485		3	max	.448	2	.183	6	.189	7	3.138e-3	1	6322.669	7	NC	3
486			min	-.234	7	-.187	1	-.192	2	-3.243e-3	6	621.163	6	583.413	2
487		4	max	.448	2	.111	6	.101	7	1.734e-3	1	NC	3	NC	1
488			min	-.234	7	-.113	1	-.11	2	-1.919e-3	6	1465.545	6	1517.157	2
489		5	max	.448	2	.058	6	.058	7	7.617e-4	1	NC	1	NC	1
490			min	-.234	7	-.076	1	-.058	2	-1.002e-3	6	NC	1	NC	1
491	50	1	max	.135	6	.381	2	1.203	6	4.577e-3	1	NC	2	NC	2
492			min	-.064	1	-.366	7	-1.218	1	-4.636e-3	6	716.093	4	60.21	1
493		2	max	.135	6	.305	2	.873	6	4.577e-3	1	NC	2	NC	2
494			min	-.064	1	-.296	7	-.883	1	-4.636e-3	6	970.902	4	81.194	1
495		3	max	.135	6	.233	2	.548	6	4.05e-3	1	NC	1	NC	2
496			min	-.064	1	-.229	7	-.554	1	-4.102e-3	6	1441.882	4	123.551	1
497		4	max	.135	6	.138	2	.233	6	6.683e-4	1	NC	1	NC	2
498			min	-.064	1	-.135	7	-.234	1	-6.614e-4	6	2636.93	4	250.19	1
499		5	max	.134	6	.06	2	.084	2	1.658e-3	6	NC	1	NC	1
500			min	-.063	1	-.063	7	-.085	7	-1.579e-3	1	NC	1	NC	1
501	51	1	max	.161	6	.606	2	1.85	6	5.524e-3	6	NC	1	NC	4
502			min	-.077	1	-.613	7	-1.827	1	-5.765e-3	1	139.765	7	41.696	6
503		2	max	.161	6	.373	2	1.132	6	5.524e-3	6	NC	1	NC	4
504			min	-.077	1	-.375	7	-1.116	1	-5.765e-3	1	243.774	7	67.681	6
505		3	max	.161	6	.23	2	.553	6	4.994e-3	6	NC	1	NC	4



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Envelope Member Section Deflections (Continued)

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC	
506		min	-.077	1	-.227	7	-.545	1	-5.198e-3	1	454.594	7	135.863	6	
507	4	max	.162	6	.133	2	.202	6	1.553e-3	6	NC	1	NC	4	
508		min	-.078	1	-.134	7	-.201	1	-1.516e-3	1	985.846	7	350.583	6	
509	5	max	.162	6	.06	2	.081	7	9.428e-4	7	NC	1	NC	1	
510		min	-.078	1	-.055	7	-.094	2	-7.204e-4	6	NC	1	NC	1	
511	52	1	max	.121	4	1.071	2	.47	6	3.252e-3	7	NC	4	NC	1
512		min	-.046	7	-1.088	7	-.482	1	-3.301e-3	2	66.507	7	148.075	2	
513	2	max	.121	4	.779	2	.37	6	3.252e-3	7	NC	4	NC	1	
514		min	-.046	7	-.79	7	-.377	1	-3.301e-3	2	89.191	7	202.78	2	
515	3	max	.121	4	.491	2	.274	6	2.952e-3	7	NC	4	NC	1	
516		min	-.046	7	-.496	7	-.277	1	-3.006e-3	2	134.232	7	319.867	2	
517	4	max	.12	4	.195	2	.166	6	9.013e-4	7	NC	4	NC	1	
518		min	-.046	7	-.198	7	-.17	1	-9.623e-4	2	275.792	7	591.819	2	
519	5	max	.12	3	.085	7	.111	2	1.568e-3	1	NC	1	NC	1	
520		min	-.046	7	-.084	2	-.107	7	-1.466e-3	6	NC	1	NC	1	
521	53	1	max	.192	2	1.502	2	.834	6	4.631e-3	2	NC	11	NC	5
522		min	-.105	7	-1.477	7	-.844	1	-4.842e-3	7	53.873	2	93.169	1	
523	2	max	.192	2	.913	2	.519	6	4.631e-3	2	NC	11	NC	5	
524		min	-.105	7	-.897	7	-.529	1	-4.842e-3	7	90.774	2	149.38	1	
525	3	max	.192	2	.464	2	.289	6	4.222e-3	2	NC	11	NC	5	
526		min	-.105	7	-.457	7	-.299	1	-4.399e-3	7	190.296	2	267.375	1	
527	4	max	.192	2	.213	2	.129	6	1.566e-3	2	NC	11	NC	5	
528		min	-.105	7	-.211	7	-.13	1	-1.514e-3	7	489.859	2	635.817	1	
529	5	max	.192	2	.094	6	.01	2	1.473e-3	6	NC	1	NC	1	
530		min	-.105	7	-.107	1	-.01	7	-1.308e-3	1	NC	1	NC	1	
531	54	1	max	.146	7	.994	2	.582	6	3.977e-3	2	NC	4	NC	1
532		min	-.076	2	-.984	7	-.572	1	-4.028e-3	7	79.08	2	214.815	2	
533	2	max	.146	7	.739	2	.437	6	3.977e-3	2	NC	4	NC	1	
534		min	-.076	2	-.732	7	-.431	1	-4.028e-3	7	106.607	2	293.175	2	
535	3	max	.146	7	.49	2	.296	6	3.43e-3	2	NC	4	NC	3	
536		min	-.076	2	-.485	7	-.294	1	-3.467e-3	7	161.764	2	460.301	2	
537	4	max	.146	7	.245	2	.136	6	4.591e-4	6	NC	4	NC	1	
538		min	-.076	2	-.245	7	-.135	1	-4.923e-4	1	328.903	7	921.122	2	
539	5	max	.146	7	.127	1	.037	7	1.978e-3	7	NC	1	NC	1	
540		min	-.076	2	-.124	6	-.041	2	-1.844e-3	2	NC	1	NC	1	
541	55	1	max	.155	1	1.662	2	.693	6	4.803e-3	7	NC	5	NC	10
542		min	-.069	6	-1.673	7	-.72	1	-5.056e-3	2	45.451	7	119.83	1	
543	2	max	.155	1	1.011	2	.432	6	4.803e-3	7	NC	5	NC	10	
544		min	-.069	6	-1.021	7	-.448	1	-5.056e-3	2	73.359	7	186.047	7	
545	3	max	.155	1	.499	2	.256	6	4.284e-3	7	NC	5	NC	10	
546		min	-.069	6	-.506	7	-.262	1	-4.506e-3	2	142.062	7	356.026	7	
547	4	max	.155	1	.176	2	.151	6	1.155e-3	1	NC	5	NC	4	
548		min	-.069	6	-.175	7	-.154	1	-1.053e-3	6	357.72	7	834.121	7	
549	5	max	.155	1	.043	7	.083	7	1.503e-3	2	NC	1	NC	1	
550		min	-.069	6	-.036	2	-.073	2	-1.393e-3	7	NC	1	NC	1	
551	56	1	max	.301	2	.201	1	.221	2	3.822e-3	1	NC	1	NC	1
552		min	-.21	7	-.2	6	-.215	7	-3.584e-3	6	205.926	2	1126.497	8	
553	2	max	.301	2	.18	1	.189	2	2.826e-3	1	NC	1	NC	5	
554		min	-.21	7	-.176	6	-.185	7	-2.795e-3	6	286.803	2	1443.844	8	
555	3	max	.302	2	.148	1	.145	2	1.83e-3	1	NC	3	NC	5	
556		min	-.21	7	-.144	6	-.142	7	-2.006e-3	6	444.573	2	2364.832	8	
557	4	max	.302	2	.109	1	.099	2	8.38e-4	2	NC	3	NC	1	
558		min	-.21	7	-.107	6	-.098	7	-1.279e-3	7	913.238	2	6468.469	8	
559	5	max	.302	2	.072	1	.06	2	3.896e-5	2	NC	1	NC	1	
560		min	-.21	7	-.07	6	-.063	7	-8.241e-4	8	NC	1	NC	1	
561	57	1	max	.311	1	.198	6	.263	7	3.875e-3	7	NC	4	NC	2
562		min	-.22	6	-.198	1	-.257	2	-3.725e-3	2	237.304	1	947.759	6	



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Envelope Member Section Deflections (Continued)

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC	
563	2	max	.311	1	.162	6	.234	7	2.539e-3	7	NC	4	NC	5	
564		min	-.22	6	-.158	1	-.23	2	-2.57e-3	2	327.609	1	1353.751	7	
565	3	max	.311	1	.131	6	.183	7	1.203e-3	7	NC	4	NC	4	
566		min	-.22	6	-.128	1	-.181	2	-1.416e-3	2	492.66	1	1746.843	7	
567	4	max	.311	1	.102	6	.127	7	4.389e-4	6	NC	4	NC	2	
568		min	-.22	6	-.099	1	-.127	2	-8.286e-4	1	962.051	1	3280.809	6	
569	5	max	.311	1	.069	6	.087	7	8.94e-4	2	NC	1	NC	1	
570		min	-.22	6	-.068	1	-.09	2	-1.47e-3	7	NC	1	NC	1	
571	58	1	max	.161	2	.355	6	.155	6	1.716e-2	6	NC	1	NC	1
572		min	-.157	7	-.353	1	-.075	1	-1.68e-2	1	1604.436	11	1211.63	9	
573	2	max	.161	2	.348	6	.151	6	1.686e-2	6	NC	2	NC	1	
574		min	-.157	7	-.346	1	-.072	1	-1.667e-2	1	2181.889	11	1547.594	9	
575	3	max	.161	2	.334	6	.143	6	1.656e-2	6	NC	5	NC	1	
576		min	-.157	7	-.334	1	-.068	1	-1.653e-2	1	2285.649	7	1675.964	2	
577	4	max	.161	2	.315	6	.136	6	1.626e-2	6	NC	3	NC	1	
578		min	-.157	7	-.316	1	-.064	1	-1.639e-2	1	2087.285	2	880.46	2	
579	5	max	.161	2	.301	6	.142	6	1.494e-2	6	NC	1	NC	1	
580		min	-.157	7	-.301	1	-.067	1	-1.515e-2	1	872.331	2	558.623	2	
581	59	1	max	.138	1	.316	7	.091	7	1.285e-2	2	NC	1	NC	1
582		min	-.135	6	-.319	2	-.175	2	-1.253e-2	7	1550.597	10	1384.288	4	
583	2	max	.138	1	.301	7	.087	7	1.374e-2	2	NC	2	NC	3	
584		min	-.135	6	-.304	2	-.168	2	-1.356e-2	7	2105.59	10	1778.581	4	
585	3	max	.138	1	.283	7	.078	7	1.464e-2	2	NC	2	NC	9	
586		min	-.135	6	-.284	2	-.154	2	-1.459e-2	7	2296.751	1	2328.306	6	
587	4	max	.138	1	.263	7	.059	7	1.553e-2	2	NC	2	NC	2	
588		min	-.134	6	-.261	2	-.131	2	-1.562e-2	7	2731.363	5	1163.863	6	
589	5	max	.138	1	.25	7	.055	6	1.514e-2	2	NC	1	NC	2	
590		min	-.134	6	-.249	2	-.13	1	-1.527e-2	7	1871.492	5	738.418	6	
591	60	1	max	.133	6	.3	2	.052	6	1.715e-2	7	NC	1	NC	1
592		min	-.13	1	-.3	7	-.143	3	-1.683e-2	2	1556.134	5	1377.444	3	
593	2	max	.133	6	.303	2	.048	2	1.587e-2	7	NC	1	NC	2	
594		min	-.13	1	-.304	7	-.136	3	-1.573e-2	2	2112.317	5	1758.943	3	
595	3	max	.133	6	.302	2	.051	2	1.46e-2	7	NC	1	NC	2	
596		min	-.13	1	-.302	7	-.129	9	-1.463e-2	2	2302.155	7	2977.13	3	
597	4	max	.133	6	.296	2	.063	2	1.332e-2	7	NC	3	NC	1	
598		min	-.13	1	-.294	7	-.134	7	-1.353e-2	2	2712.998	11	3513.556	11	
599	5	max	.133	6	.287	2	.088	2	1.166e-2	7	NC	2	NC	1	
600		min	-.13	1	-.286	7	-.162	7	-1.196e-2	2	1380.504	1	2009.412	11	
601	61	1	max	.276	2	.438	2	.49	6	5.378e-3	1	NC	3	NC	2
602		min	-.187	7	-.426	7	-.506	1	-5.386e-3	6	200.231	2	172.158	1	
603	2	max	.276	2	.331	2	.373	6	5.378e-3	1	NC	3	NC	2	
604		min	-.187	7	-.323	7	-.383	1	-5.386e-3	6	275.775	2	236.325	1	
605	3	max	.276	2	.23	2	.26	6	4.971e-3	1	NC	1	NC	2	
606		min	-.187	7	-.225	7	-.265	1	-5.006e-3	6	429.363	2	367.176	1	
607	4	max	.276	2	.142	2	.158	6	2.326e-3	1	NC	1	NC	2	
608		min	-.187	7	-.139	7	-.158	1	-2.536e-3	6	837.309	2	745.986	1	
609	5	max	.276	2	.048	2	.059	6	4.95e-4	1	NC	1	NC	1	
610		min	-.187	7	-.05	7	-.053	1	-8.257e-4	6	NC	1	NC	1	
611	62	1	max	.286	1	.549	2	.412	6	4.693e-3	7	NC	1	NC	9
612		min	-.198	6	-.565	7	-.415	1	-4.734e-3	2	154.54	7	218.952	1	
613	2	max	.286	1	.42	2	.314	6	4.693e-3	7	NC	1	NC	9	
614		min	-.198	6	-.43	7	-.316	1	-4.734e-3	2	210.681	7	303.186	1	
615	3	max	.286	1	.296	2	.221	6	4.218e-3	7	NC	3	NC	9	
616		min	-.198	6	-.301	7	-.223	1	-4.28e-3	2	323.575	7	476.056	1	
617	4	max	.286	1	.179	2	.14	6	1.129e-3	7	NC	3	NC	4	
618		min	-.198	6	-.179	7	-.143	1	-1.357e-3	1	655.508	7	929.917	1	
619	5	max	.286	1	.066	2	.057	6	9.907e-4	6	NC	2	NC	1	



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Envelope Member Section Deflections (Continued)

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC
620		min	-.198	6	-.06	7	-.059	1	-1.322e-3	1	3954.41	1	NC	1
621	63	max	.278	7	.516	2	.462	6	4.961e-3	2	NC	5	NC	2
622		min	-.192	2	-.505	7	-.446	1	-4.909e-3	7	167.966	2	187.021	6
623		max	.278	7	.39	2	.349	6	4.961e-3	2	NC	5	NC	2
624		min	-.192	2	-.383	7	-.339	1	-4.909e-3	7	230.427	2	256.238	6
625		max	.278	7	.27	2	.242	6	4.654e-3	2	NC	3	NC	2
626		min	-.192	2	-.266	7	-.237	1	-4.639e-3	7	357.677	2	395.612	6
627		max	.279	7	.16	2	.144	6	2.66e-3	2	NC	3	NC	2
628		min	-.192	2	-.162	7	-.143	1	-2.881e-3	7	718.28	2	785.539	6
629		max	.279	7	.052	2	.045	6	1.279e-3	2	NC	1	NC	1
630		min	-.193	2	-.057	7	-.05	1	-1.664e-3	7	NC	1	NC	1

Envelope Member Section Forces

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k...	LC	y-y Mome...	LC	z-z Mom...	LC
1	1	max	598.066	4	195.041	7	101.189	7	.011	1	.181	2	.008	7
2		min	-137.538	1	-419.539	2	-91.296	2	-.01	6	-.219	7	-.253	8
3		max	598.066	4	230.204	7	101.138	7	.011	1	.085	7	1.032	2
4		min	-137.538	1	-383.969	2	-91.28	2	-.01	6	-.093	2	-.626	7
5		max	3248.417	6	946.984	2	2594.605	2	.016	7	.128	1	.959	1
6		min	-1705.233	1	-972.411	7	-2595.638	7	-.015	2	-.12	6	-1.975	6
7		max	435.277	7	360.88	7	84.616	7	.013	6	.058	2	.935	7
8		min	-309.835	2	-240.61	2	-71.897	2	-.013	1	-.056	7	-.698	2
9		max	448.026	7	561.587	1	77.127	7	.014	6	.121	7	-.045	1
10		min	-333.75	2	-646.663	6	-62.5	2	-.018	1	-.077	2	-.164	8
11	2	max	680.229	1	234.913	6	99.768	2	.009	6	.188	1	.036	6
12		min	-263.52	6	-444.624	1	-88.406	7	-.009	1	-.219	6	-.162	3
13		max	734.278	1	271.901	6	120.469	6	.009	6	.096	6	1.142	1
14		min	-317.569	6	-407.073	1	-112.534	1	-.009	1	-.102	1	-.72	6
15		max	3282.691	2	751.958	1	2342.636	1	.011	6	.11	7	.836	7
16		min	-1747.463	7	-790.229	6	-2344.99	6	-.01	1	-.1	2	-1.864	2
17		max	695.413	2	469.044	2	112.378	2	.012	2	.076	1	.921	2
18		min	-567.205	7	-350.117	7	-96.941	7	-.012	7	-.074	6	-.686	7
19		max	613.438	2	421.798	7	68.786	6	.022	2	.094	6	-.044	6
20		min	-499.312	7	-500.195	2	-55.72	1	-.026	7	-.051	1	-.164	3
21	3	max	733.628	7	252.16	2	95.667	1	.012	2	.149	6	.069	2
22		min	-318.082	2	-457.91	7	-86.474	6	-.012	7	-.182	1	-.171	7
23		max	787.645	7	287.363	2	114.606	2	.012	2	.09	2	1.152	7
24		min	-372.099	2	-422.129	7	-105.408	7	-.012	7	-.093	7	-.736	2
25		max	3142.198	7	786.084	6	2293.064	6	.013	1	.107	2	.996	2
26		min	-1627.213	2	-809.842	1	-2291.531	1	-.011	6	-.099	7	-2.005	7
27		max	607.672	1	434.972	1	98.543	1	.01	7	.085	7	.959	1
28		min	-524.903	6	-284.28	6	-82.814	6	-.009	2	-.081	2	-.737	6
29		max	544.192	1	407.02	2	95.419	2	.019	1	.16	2	-.07	7
30		min	-482.608	6	-533.544	7	-82.468	7	-.026	6	-.107	7	-.29	3
31	4	max	335.899	1	575.157	1	887.645	1	.168	4	.112	6	.186	1
32		min	-138.888	6	-235.712	6	-623.026	6	.026	7	-.153	1	-.217	6
33		max	335.899	1	575.157	1	886.619	1	.168	4	.034	6	.114	1
34		min	-138.888	6	-235.712	6	-624.052	6	.026	7	-.042	1	-.188	6
35		max	335.899	1	575.157	1	885.5	1	.168	4	.099	6	.169	1
36		min	-165.995	2	-349.832	6	-1090.446	6	-.08	6	.027	5	-.195	4
37		max	239.999	7	257.625	2	749.883	1	-.035	1	.04	1	.137	1
38		min	-165.995	2	-349.832	6	-1091.558	6	-.161	8	-.038	6	-.106	6
39		max	239.999	7	257.625	2	748.861	1	-.035	1	.134	1	.12	7
40		min	-165.995	2	-349.832	6	-1092.58	6	-.161	8	-.174	6	-.075	2
41	5	max	3312.366	6	2232.684	2	600.768	6	.007	7	.869	1	.036	6



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Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...]	LC	y-y Mome...	LC	z-z Mom...	LC	
42		min	-3275.951	1	-1074.025	7	-615.692	1	-.013	2	-.846	6	-.022	1	
43	2	max	3312.366	6	2247.888	2	600.768	6	.007	7	.055	6	1.596	7	
44		min	-3275.951	1	-1058.822	7	-615.692	1	-.013	2	-.054	1	-3.341	2	
45	3	max	1.078	9	9.886	9	1.867	4	0	1	0	4	0	7	
46		min	-1.078	4	3.431	2	-1.867	9	0	1	0	9	0	4	
47	4	max	3505.118	2	970.816	1	705.15	7	.009	6	.057	2	1.538	1	
48		min	-3516.605	7	-2126.211	6	-709.69	2	-.004	1	-.057	7	-3.224	6	
49	5	max	3505.118	2	986.022	1	705.15	7	.009	6	1.001	7	.07	1	
50		min	-3516.605	7	-2111.005	6	-709.69	2	-.004	1	-1.007	2	-.048	6	
51	6	1	max	307.281	9	650.427	7	1277.841	7	.166	3	.174	2	.149	6
52		min	-78.532	2	-306.965	2	-1021.591	2	.032	6	-.213	7	-.182	1	
53	2	max	307.281	9	650.427	7	1276.823	7	.166	3	.046	2	.124	6	
54		min	-78.532	2	-306.965	2	-1022.609	2	.032	6	-.053	7	-.2	1	
55	3	max	172.23	2	428.584	7	976.211	7	-.036	6	.113	2	.175	7	
56		min	-110.819	7	-517.967	2	-1325.511	2	-.161	3	-.067	7	-.151	2	
57	4	max	172.23	2	428.584	7	975.116	7	-.036	6	.055	7	.121	7	
58		min	-110.819	7	-517.967	2	-1326.605	2	-.161	3	-.053	2	-.086	2	
59	5	max	172.23	2	428.584	7	974.099	7	-.036	6	.176	7	.094	6	
60		min	-110.819	7	-517.967	2	-1327.623	2	-.161	3	-.219	2	-.05	1	
61	7	1	max	2996.134	1	2052.771	7	640.426	1	.005	6	.928	6	.029	1
62		min	-3017.83	6	-912.934	2	-649.148	6	-.011	1	-.915	1	-.015	6	
63	2	max	2996.134	1	2067.535	7	640.426	1	.005	6	.047	2	1.388	2	
64		min	-3017.83	6	-898.17	2	-649.148	6	-.011	1	-.047	7	-3.105	7	
65	3	max	0	1	-3.232	2	0	1	0	1	0	1	0	7	
66		min	0	1	-9.697	9	0	1	0	1	0	1	0	4	
67	4	max	3039.57	1	844.449	7	653.873	6	.01	1	.047	7	1.361	7	
68		min	-3069.727	6	-2002.628	2	-660.479	1	-.005	6	-.046	2	-3.054	2	
69	5	max	3039.57	1	859.221	7	653.873	6	.01	1	.936	6	.082	7	
70		min	-3069.727	6	-1987.857	2	-660.479	1	-.005	6	-.945	1	-.061	2	
71	8	1	max	319.542	4	502.01	6	1118.206	6	.282	4	.131	1	.18	2
72		min	-114.871	7	-197.449	1	-704.886	1	.076	7	-.193	6	-.218	7	
73	2	max	319.542	4	502.01	6	1117.196	6	.282	4	.043	1	.13	2	
74		min	-114.871	7	-197.449	1	-705.896	1	.076	7	-.053	6	-.204	7	
75	3	max	319.542	4	502.01	6	1116.105	6	.282	4	.086	6	.08	2	
76		min	-114.871	7	-197.449	1	-706.987	1	.076	7	-.045	1	-.191	7	
77	4	max	231.273	1	400.692	6	623.404	6	-.076	7	.055	6	.178	2	
78		min	-165.4	6	-431.106	1	-1125.699	1	-.277	4	-.052	1	-.13	7	
79	5	max	231.273	1	400.692	6	622.392	6	-.076	7	.132	6	.162	2	
80		min	-165.4	6	-431.106	1	-1126.712	1	-.277	4	-.193	1	-.108	7	
81	9	1	max	3529.277	7	2182.037	6	699.798	7	.005	1	1.013	2	.041	7
82		min	-3530.113	2	-1044.352	1	-712.656	2	-.011	6	-.993	7	-.029	2	
83	2	max	3529.277	7	2196.807	6	699.798	7	.005	1	.056	7	1.571	1	
84		min	-3530.113	2	-1029.582	1	-712.656	2	-.011	6	-.056	2	-3.285	6	
85	3	max	1.081	9	9.722	3	1.872	9	0	1	0	9	0	1	
86		min	-1.081	4	3.24	6	-1.872	4	0	1	0	4	0	8	
87	4	max	3208.043	6	1004.238	2	605.656	1	.011	7	.053	6	1.558	2	
88		min	-3181.925	1	-2152.005	7	-606.562	6	-.007	2	-.053	1	-3.234	7	
89	5	max	3208.043	6	1018.997	2	605.656	1	.011	7	.856	1	.07	6	
90		min	-3181.925	1	-2137.246	7	-606.562	6	-.007	2	-.857	6	-.05	1	
91	10	1	max	1387.009	2	687.959	6	1395.208	1	.032	1	.623	1	.637	6
92		min	-1790.441	7	-658.369	1	-2140.72	6	-.031	6	-.642	6	-.757	1	
93	2	max	498.159	1	522.144	6	84.622	1	.031	1	.373	6	.757	1	
94		min	-2314.821	8	-542.774	1	-36.467	6	-.031	6	-.334	1	-.737	6	
95	3	max	560.391	1	123.908	1	136.733	7	.01	6	.118	6	.712	1	
96		min	-2441.357	8	-128.62	6	-154.506	2	-.01	1	-.14	1	-.747	6	
97	4	max	468.955	1	281.368	1	157.653	6	.013	6	.099	7	.22	1	
98		min	-2306.07	8	-284.141	6	-151.011	1	-.013	1	-.081	2	-.195	6	



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Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k...]	LC	y-y Mome...	LC	z-z Mom...	LC	
99	5	max	1576.363	7	444.517	1	1474.236	7	.017	6	.372	1	.456	6	
100		min	-1713.2	2	-486.304	6	-853.106	2	-.021	1	-.471	6	-.515	1	
101	11	1	max	1707.16	1	584.785	2	1560.482	6	.023	7	.569	7	.647	2
102		min	-2145.009	6	-573.18	7	-2288.253	1	-.023	2	-.596	2	-.734	7	
103		2	max	327.792	7	469.081	2	84.391	7	.023	7	.322	2	.575	7
104		min	-2271.156	4	-479.113	7	-43.756	2	-.023	2	-.282	7	-.554	2	
105		3	max	544.349	7	91.458	7	122.151	6	.009	1	.115	2	.586	7
106		min	-2434.848	4	-95.375	2	-141.991	1	-.008	6	-.137	7	-.622	2	
107		4	max	329.373	7	217.529	7	101.454	2	.012	2	.118	2	.144	7
108		min	-2266.93	4	-215.668	2	-96.979	7	-.012	7	-.103	7	-.12	2	
109		5	max	1931.249	2	329.386	7	2004.4	2	.025	2	.235	7	.268	2
110		min	-2073.893	7	-387.032	2	-1350.102	7	-.029	7	-.324	2	-.34	7	
111	12	1	max	1706.624	7	590.249	7	2131.248	2	.032	2	.537	2	.501	7
112		min	-2140.489	2	-542.81	2	-2853.468	7	-.032	7	-.549	7	-.608	2	
113		2	max	477.497	2	439.885	7	73.797	8	.03	2	.322	7	.655	2
114		min	-2306.242	9	-462.297	2	-15.494	1	-.03	7	-.286	2	-.629	7	
115		3	max	367.427	2	102.455	2	112.803	1	.013	7	.068	1	.61	2
116		min	-2394.814	9	-106.559	7	-131.745	6	-.012	2	-.089	2	-.644	7	
117		4	max	400.713	2	227.089	2	148.119	7	.009	7	.125	1	.269	2
118		min	-2295.33	9	-234.588	7	-141.729	2	-.009	2	-.109	6	-.247	7	
119		5	max	1914.056	1	362.816	2	1881.236	1	.018	1	.213	2	.354	7
120		min	-2006.159	6	-391.466	7	-1284.781	6	-.029	6	-.36	7	-.436	2	
121	13	1	max	723.274	1	1529.58	1	953.032	1	.154	9	.109	6	.92	7
122		min	-950.633	6	-1869.61	6	-705.387	6	.038	2	-.143	1	-.877	2	
123		2	max	723.274	1	1529.58	1	952.075	1	.154	9	.021	6	.994	7
124		min	-950.633	6	-1869.61	6	-706.344	6	.038	2	-.024	1	-.909	2	
125		3	max	864.518	7	1529.58	1	951.118	1	.154	9	.095	1	1.068	7
126		min	-954.152	2	-1869.61	6	-720.669	7	-.155	3	.022	10	-.941	2	
127		4	max	864.518	7	1406.481	2	483.954	1	-.045	6	.039	1	.768	1
128		min	-954.152	2	-1315.924	7	-843.488	6	-.155	3	-.036	6	-.786	6	
129		5	max	864.518	7	1406.481	2	482.997	1	-.045	6	.1	1	.626	1
130		min	-954.152	2	-1315.924	7	-844.445	6	-.155	3	-.142	6	-.654	6	
131	14	1	max	414.901	6	1750.667	7	1107.881	7	.156	4	.127	2	.808	2
132		min	-648.79	2	-2084.702	2	-867.952	2	.027	7	-.159	7	-.739	7	
133		2	max	414.901	6	1750.667	7	1106.924	7	.156	4	.018	2	1.068	2
134		min	-648.79	2	-2084.702	2	-868.909	2	.027	7	-.021	7	-.958	7	
135		3	max	727.649	2	1968.262	7	804.05	7	-.047	2	.095	2	.896	7
136		min	-835.89	7	-1878.541	2	-1170.144	2	-.154	9	-.046	7	-.886	2	
137		4	max	727.649	2	1968.262	7	803.093	7	-.047	2	.054	7	.65	7
138		min	-835.89	7	-1878.541	2	-1171.101	2	-.154	9	-.052	2	-.651	2	
139		5	max	727.649	2	1968.262	7	802.136	7	-.047	2	.154	7	.404	7
140		min	-835.89	7	-1878.541	2	-1172.057	2	-.154	9	-.198	2	-.416	2	
141	15	1	max	745.936	2	1144.228	2	706.068	6	.233	3	.099	1	.974	1
142		min	-958.635	7	-1437.468	7	-626.346	1	.046	6	-.12	6	-.902	6	
143		2	max	745.936	2	1144.228	2	705.114	6	.233	3	.023	7	1.136	1
144		min	-958.635	7	-1437.468	7	-627.3	1	.046	6	-.035	2	-1.028	6	
145		3	max	745.936	2	1144.228	2	704.16	6	.233	3	.056	6	1.297	1
146		min	-958.635	7	-1437.468	7	-628.255	1	.046	6	-.057	1	-1.154	6	
147		4	max	904.309	1	1753.236	6	598.954	6	-.044	7	.059	6	.484	2
148		min	-998.825	6	-1712.6	1	-807.863	1	-.235	4	-.059	1	-.526	7	
149		5	max	904.309	1	1753.236	6	597.999	6	-.044	7	.134	6	.457	2
150		min	-998.825	6	-1712.6	1	-808.818	1	-.235	4	-.16	1	-.504	7	
151	16	1	max	772.657	1	61.353	7	29.877	6	.003	6	.109	1	.136	9
152		min	-1431.041	6	-30.554	2	-67.022	1	-.002	1	-.103	6	-.029	2	
153		2	max	775.146	1	52.219	9	40.677	6	.003	6	.068	1	.074	9
154		min	-1428.551	6	-19.754	2	-77.822	1	-.002	1	-.065	6	-.005	2	
155		3	max	777.636	1	48.169	9	51.477	6	.003	6	.02	1	.038	6



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Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...]	LC	y-y Mome...	LC	z-z Mom...	LC	
156		min	-1426.061	6	-8.954	2	-88.622	1	-.002	1	-.021	6	-.025	1	
157	4	max	780.126	1	47.887	8	62.277	6	.003	6	.028	6	.048	6	
158		min	-1423.572	6	-5.951	1	-99.422	1	-.002	1	-.033	1	-.072	1	
159	5	max	782.616	1	47.887	8	73.077	6	.003	6	.084	6	.065	6	
160		min	-1421.082	6	-5.951	1	-110.222	1	-.002	1	-.091	1	-.124	1	
161	17	1	max	488.869	2	60.498	6	49.694	1	.002	1	.037	7	.129	6
162		min	-760.051	7	-57.926	1	-38.568	6	-.001	6	-.052	2	-.136	1	
163	2	max	491.358	2	60.498	6	60.494	1	.002	1	.014	7	.074	6	
164		min	-757.561	7	-57.926	1	-49.368	6	-.001	6	-.023	2	-.076	1	
165	3	max	493.848	2	60.498	6	71.294	1	.002	1	.001	2	.013	6	
166		min	-755.071	7	-57.926	1	-60.168	6	-.001	6	-.004	10	-.013	10	
167	4	max	496.338	2	60.498	6	82.094	1	.002	1	.019	2	.061	1	
168		min	-752.581	7	-57.926	1	-70.968	6	-.001	6	-.013	7	-.054	6	
169	5	max	498.828	2	60.498	6	92.894	1	.002	1	.032	2	.139	1	
170		min	-750.091	7	-57.926	1	-81.768	6	-.001	6	-.018	7	-.127	6	
171	18	1	max	769.669	6	12.917	1	34.017	6	.002	6	0	1	0	1
172		min	-390.797	1	-10.58	6	-33.148	1	-.003	1	0	1	0	1	
173	2	max	772.159	6	12.917	1	23.217	6	.002	6	.01	6	.021	6	
174		min	-388.307	1	-10.58	6	-22.348	1	-.003	1	-.008	1	-.022	1	
175	3	max	774.648	6	18.903	2	11.677	1	.002	6	.014	6	.036	6	
176		min	-385.817	1	-21.427	7	-12.699	6	-.003	1	-.01	1	-.038	1	
177	4	max	775.127	6	10.58	6	22.477	1	.002	6	.01	6	.021	6	
178		min	-374.568	1	-12.917	1	-23.499	6	-.003	1	-.008	1	-.022	1	
179	5	max	777.616	6	10.58	6	33.277	1	.002	6	0	1	0	1	
180		min	-372.079	1	-12.917	1	-34.299	6	-.003	1	0	1	0	1	
181	19	1	max	302.784	2	6.123	7	8.886	1	.004	1	0	1	0	1
182		min	-622.491	7	-7.292	2	-11.313	6	-.004	6	0	1	0	1	
183	2	max	305.274	2	3.508	2	-.513	6	.004	1	.003	1	0	2	
184		min	-620.001	7	-4.677	7	-4.059	3	-.004	6	-.005	6	-.002	9	
185	3	max	664.033	2	15.477	7	14.892	1	.004	1	.003	2	.006	6	
186		min	-1128.877	7	-2.59	1	-12.455	6	-.004	6	-.007	7	-.007	1	
187	4	max	666.523	2	4.677	7	4.594	3	.004	1	.002	1	0	2	
188		min	-1126.388	7	-3.508	2	-1.655	6	-.004	6	-.004	6	-.002	9	
189	5	max	669.013	2	7.292	2	9.145	6	.004	1	0	1	0	1	
190		min	-1123.898	7	-6.123	7	-6.708	1	-.004	6	0	1	0	1	
191	20	1	max	3451.442	6	36.752	1	35.48	6	.001	1	0	1	0	1
192		min	-2092.896	1	-43.456	6	-41.964	1	0	6	0	1	0	1	
193	2	max	3453.931	6	26.611	1	25.339	6	.001	1	.001	2	.057	6	
194		min	-2090.406	1	-28.815	6	-27.323	1	0	6	-.012	9	-.057	1	
195	3	max	3456.421	6	16.469	1	15.197	6	.001	1	-.001	1	.093	6	
196		min	-2087.916	1	-14.175	6	-12.682	1	0	6	-.011	9	-.093	1	
197	4	max	3458.911	6	21.065	7	10.574	9	.001	1	.01	7	.108	6	
198		min	-2085.426	1	-14.977	2	1.958	1	0	6	-.01	2	-.107	1	
199	5	max	3597.765	6	238.934	6	179.803	1	.004	6	0	1	0	1	
200		min	-2032.676	1	-224.754	1	-150.496	6	-.006	1	0	1	0	1	
201	21	1	max	3521.4	6	35.047	1	20.938	4	.001	6	0	1	0	1
202		min	-1865.189	1	-35.047	6	-6.949	7	-.001	1	0	1	0	1	
203	2	max	3523.89	6	17.524	1	10.469	4	.001	6	.027	1	.027	6	
204		min	-1862.699	1	-17.524	6	-3.475	7	-.001	1	-.019	6	-.019	1	
205	3	max	3526.38	6	0	1	0	1	.001	6	.036	1	.036	6	
206		min	-1860.209	1	0	1	0	1	-.001	1	-.025	6	-.025	1	
207	4	max	3528.87	6	17.524	6	3.475	7	.001	6	.027	1	.027	6	
208		min	-1857.72	1	-17.524	1	-10.469	4	-.001	1	-.019	6	-.019	1	
209	5	max	3531.359	6	35.047	6	6.949	7	.001	6	0	1	0	1	
210		min	-1855.23	1	-35.047	1	-20.938	4	-.001	1	0	1	0	1	
211	22	1	max	543.563	7	55.239	2	77.754	7	.002	7	.022	6	.158	2
212		min	-835.906	2	-52.523	7	-67.355	2	-.002	2	-.038	1	-.164	7	



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Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC	
213	2	max	546.053	7	60.639	2	87.107	7	.002	7	.009	2	.089	2	
214		min	-833.416	2	-57.923	7	-76.709	2	-.002	2	-.017	7	-.091	7	
215	3	max	548.543	7	66.039	2	96.46	7	.002	7	.003	1	.013	2	
216		min	-830.926	2	-63.323	7	-86.062	2	-.002	2	-.004	6	-.013	5	
217	4	max	551.033	7	71.439	2	105.813	7	.002	7	.019	7	.079	7	
218		min	-828.436	2	-68.723	7	-95.415	2	-.002	2	-.012	2	-.072	2	
219	5	max	553.523	7	76.839	2	115.166	7	.002	7	.039	7	.175	7	
220		min	-825.947	2	-74.123	7	-104.768	2	-.002	2	-.026	2	-.164	2	
221	23	1	max	868.562	1	10.857	7	23.246	2	.002	2	0	1	0	1
222		min	-483.147	6	-8.399	2	-22.57	7	-.003	7	0	1	0	1	
223	2	max	871.052	1	12.377	6	14.807	1	.002	2	.007	2	.013	2	
224		min	-480.658	6	-9.847	1	-14.309	6	-.003	7	-.005	7	-.014	7	
225	3	max	873.542	1	19.2	1	10.218	6	.002	2	.012	2	.028	1	
226		min	-478.168	6	-21.73	6	-10.871	1	-.003	7	-.008	7	-.03	6	
227	4	max	856.424	1	9.847	1	15.618	6	.002	2	.007	1	.013	1	
228		min	-449.519	6	-12.377	6	-16.271	1	-.003	7	-.006	6	-.014	6	
229	5	max	858.914	1	8.4	2	21.615	7	.002	2	0	1	0	1	
230		min	-447.029	6	-10.858	7	-22.415	2	-.003	7	0	1	0	1	
231	24	1	max	510.386	7	8.113	6	8.077	7	.003	7	0	1	0	1
232		min	-848.639	2	-9.08	1	-9.751	2	-.003	2	0	1	0	1	
233	2	max	512.875	7	4.039	7	-1.135	1	.003	7	.003	7	.001	7	
234		min	-846.149	2	-5.833	2	-4.995	4	-.003	2	-.004	2	-.003	4	
235	3	max	906.597	7	11.232	2	12.238	7	.003	7	.003	7	.007	2	
236		min	-1393.303	2	-9.626	1	-10.529	2	-.003	2	-.007	4	-.007	7	
237	4	max	909.087	7	5.832	2	4.828	8	.003	7	.002	7	.001	1	
238		min	-1390.814	2	-4.039	7	-1.176	2	-.003	2	-.004	4	-.003	4	
239	5	max	911.576	7	9.08	1	8.177	2	.003	7	0	1	0	1	
240		min	-1388.324	2	-8.113	6	-6.468	7	-.003	2	0	1	0	1	
241	25	1	max	3819.743	1	30.728	7	24.039	1	0	6	0	1	0	1
242		min	-2503.052	6	-37.157	2	-30.154	6	0	1	0	1	0	1	
243	2	max	3830.974	1	19.493	7	16.973	2	0	6	.001	7	.042	2	
244		min	-2509.304	6	-21.482	2	-19.243	7	0	1	-.012	4	-.042	7	
245	3	max	3842.205	1	18.313	6	13.076	2	0	6	0	7	.066	2	
246		min	-2515.555	6	-16.577	1	-10.787	7	0	1	-.011	4	-.067	7	
247	4	max	3853.437	1	20.714	6	10.339	8	0	6	.011	6	.08	1	
248		min	-2521.807	6	-14.537	1	-2.331	7	0	1	-.011	1	-.077	6	
249	5	max	4219.775	1	200.22	2	181.37	7	.003	2	0	1	0	1	
250		min	-2676.733	6	-186.958	7	-149.977	2	-.004	7	0	1	0	1	
251	26	1	max	4790.249	2	27.681	7	21.015	3	.001	2	0	1	0	1
252		min	-3129.989	7	-27.846	2	-7.149	6	-.001	7	0	1	0	1	
253	2	max	4799.085	2	13.841	7	10.507	3	.001	2	.029	7	.021	1	
254		min	-3133.846	7	-13.923	2	-3.574	6	-.001	7	-.021	2	-.013	6	
255	3	max	4807.921	2	0	1	0	1	.001	2	.038	7	.028	1	
256		min	-3137.703	7	0	1	0	1	-.001	7	-.027	2	-.017	6	
257	4	max	4816.758	2	13.923	2	3.574	6	.001	2	.029	7	.021	1	
258		min	-3141.56	7	-13.841	7	-10.507	3	-.001	7	-.021	2	-.013	6	
259	5	max	4825.594	2	27.846	2	7.149	6	.001	2	0	1	0	1	
260		min	-3145.416	7	-27.681	7	-21.015	3	-.001	7	0	1	0	1	
261	27	1	max	677.436	6	55.463	7	74.36	6	.003	6	.026	1	.088	7
262		min	-1079.951	1	-59.334	2	-44.277	1	-.002	1	-.056	6	-.128	2	
263	2	max	679.926	6	50.063	7	79.76	6	.003	6	.011	1	.049	7	
264		min	-1077.461	1	-53.934	2	-49.677	1	-.002	1	-.028	8	-.071	2	
265	3	max	682.416	6	44.663	7	85.16	6	.003	6	.003	7	.008	7	
266		min	-1074.971	1	-48.534	2	-55.077	1	-.002	1	-.006	2	-.016	11	
267	4	max	684.906	6	42.091	1	90.56	6	.003	6	.024	6	.063	6	
268		min	-1072.481	1	-46.115	6	-60.477	1	-.002	1	-.013	1	-.048	1	
269	5	max	687.396	6	51.444	1	95.96	6	.003	6	.046	6	.139	6	

Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k...	LC	y-y Mome...	LC	z-z Mom...	LC
270		min	-1069.992	1	-55.468	6	-65.877	1	-.002	1	-.022	1	-.107	1
271	28	max	1162.143	7	9.789	2	33.271	7	.002	7	0	1	0	1
272		min	-780.7	2	-7.561	7	-32.311	2	-.002	2	0	1	0	1
273		max	1164.633	7	15.189	2	23.918	7	.002	7	.01	7	.021	7
274		min	-778.21	2	-12.961	7	-22.958	2	-.002	2	-.008	2	-.021	2
275		max	1167.123	7	18.361	7	14.626	2	.002	7	.013	7	.04	7
276		min	-775.72	2	-20.589	2	-15.753	7	-.002	2	-.009	2	-.042	2
277		max	1152.492	7	12.961	7	23.979	2	.002	7	.01	7	.021	7
278		min	-749.368	2	-15.189	2	-25.106	7	-.002	2	-.009	2	-.022	2
279		max	1154.982	7	7.561	7	33.333	2	.002	7	0	1	0	1
280		min	-746.878	2	-9.789	2	-34.46	7	-.002	2	0	1	0	1
281	29	max	440.008	6	6.566	2	6.907	2	.003	2	0	1	0	1
282		min	-762.072	1	-7.561	7	-9.888	7	-.003	7	0	1	0	1
283		max	442.498	6	3.582	6	-.535	7	.003	2	.003	2	.002	6
284		min	-759.583	1	-5.06	1	-4.624	9	-.003	7	-.005	7	-.002	3
285		max	839.057	6	14.413	1	13.685	2	.003	2	.003	6	.005	1
286		min	-1300.107	1	-12.935	6	-10.707	7	-.003	7	-.007	3	-.006	2
287		max	841.547	6	5.06	1	4.332	2	.003	2	.002	2	.001	6
288		min	-1297.617	1	-3.582	6	-1.353	7	-.003	7	-.004	9	-.002	3
289		max	844.037	6	7.561	7	8	7	.003	2	0	1	0	1
290		min	-1295.127	1	-6.566	2	-5.021	2	-.003	7	0	1	0	1
291	30	max	4666.319	7	28.046	2	35.674	7	.001	2	0	1	0	1
292		min	-3367.595	2	-35.123	7	-41.84	2	-.002	7	0	1	0	1
293		max	4675.151	7	24.152	2	24.434	7	.001	2	.002	6	.052	7
294		min	-3371.447	2	-26.67	7	-26.162	2	-.002	7	-.012	3	-.052	2
295		max	4683.982	7	20.258	2	13.195	7	.001	2	0	6	.088	7
296		min	-3375.299	2	-18.216	7	-10.485	2	-.002	7	-.011	3	-.087	2
297		max	4692.813	7	16.787	1	12.211	4	.001	2	.01	2	.107	7
298		min	-3379.15	2	-10.228	6	-.167	6	-.002	7	-.009	7	-.105	2
299		max	4913.716	7	216.287	7	123.083	2	.004	7	0	1	0	1
300		min	-3380.457	2	-200.586	2	-94.562	7	-.006	2	0	1	0	1
301	31	max	3966.903	1	27.851	2	21.009	8	0	7	0	1	0	1
302		min	-2282.751	6	-27.679	7	-7.145	1	0	2	0	1	0	1
303		max	3978.133	1	13.925	2	10.505	8	0	7	.021	6	.029	7
304		min	-2289.001	6	-13.839	7	-3.572	1	0	2	-.013	1	-.021	2
305		max	3989.363	1	0	1	0	1	0	7	.028	6	.038	7
306		min	-2295.252	6	0	1	0	1	0	2	-.017	1	-.027	2
307		max	4000.593	1	13.839	7	3.572	1	0	7	.021	6	.029	7
308		min	-2301.502	6	-13.925	2	-10.505	8	0	2	-.013	1	-.021	2
309		max	4011.823	1	27.679	7	7.145	1	0	7	0	1	0	1
310		min	-2307.752	6	-27.851	2	-21.009	8	0	2	0	1	0	1
311	32	max	623.941	9	305.812	1	-75.126	7	.122	1	.329	4	.207	4
312		min	72.437	2	-176.619	6	-873.268	4	-.142	6	.063	7	-.031	7
313		max	622.204	9	291.859	1	-71.466	7	.122	1	.036	7	.138	4
314		min	80.489	2	-162.665	6	-862.859	4	-.142	6	-.027	2	-.008	7
315		max	620.467	9	277.896	1	-67.882	7	.122	1	.01	7	.131	6
316		min	88.541	2	-148.699	6	-851.642	4	-.142	6	-.318	4	-.092	1
317		max	618.73	9	263.942	1	-64.222	7	.122	1	-.015	7	.184	6
318		min	96.593	2	-134.745	6	-841.232	4	-.142	6	-.635	4	-.194	1
319		max	616.993	9	249.989	1	-60.562	7	.122	1	-.038	7	.232	6
320		min	104.645	2	-120.792	6	-830.823	4	-.142	6	-.949	4	-.29	1
321	33	max	616.178	8	378.299	7	-75.987	6	.173	7	.328	3	.257	7
322		min	102.506	1	-250.952	2	-873.156	3	-.194	2	.068	6	-.116	2
323		max	616.178	8	359.699	7	-72.328	6	.173	7	.04	6	.152	1
324		min	102.506	1	-232.352	2	-862.746	3	-.194	2	-.032	1	-.06	6
325		max	616.178	8	341.1	7	-68.716	6	.173	7	.014	6	.127	1
326		min	102.506	1	-213.749	2	-851.481	3	-.194	2	-.319	3	-.083	6

Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k...]	LC	y-y Mome...	LC	z-z Mom...	LC	
327	4	max	616.178	8	322.5	7	-65.056	6	.173	7	-.011	6	.135	2	
328		min	102.506	1	-195.149	2	-841.072	3	-.194	2	-.637	3	-.137	7	
329	5	max	616.178	8	303.9	7	-61.397	6	.173	7	-.035	6	.204	2	
330		min	102.506	1	-176.549	2	-830.662	3	-.194	2	-.95	3	-.255	7	
331	34	1	max	0	0	1	0	1	0	1	0	1	0	1	
332		min	0	1	0	1	0	1	0	1	0	1	0	1	
333	2	max	.62	2	290.283	4	743.37	7	.437	3	.104	4	.091	7	
334		min	-40.136	9	66.184	7	-632.957	2	.092	7	.002	7	-.107	2	
335	3	max	.62	2	290.283	4	745.682	7	.437	3	.282	7	.067	7	
336		min	-40.136	9	66.184	7	-630.645	2	.092	7	-.161	2	-.16	2	
337	4	max	272.981	7	17.255	1	464.96	7	.065	6	.282	7	.07	2	
338		min	-175.741	2	-334.893	8	-914.182	2	-.513	3	-.31	2	-.13	7	
339	5	max	0	1	0	1	0	1	0	1	0	1	0	1	
340		min	0	1	0	1	0	1	0	1	0	1	0	1	
341	35	1	max	0	0	6	.001	1	0	1	0	1	0	1	
342		min	0	1	0	7	0	4	0	1	0	1	0	1	
343	2	max	68.061	1	-30.281	7	241.578	1	.65	4	-.005	1	.085	1	
344		min	-103.366	6	-238.168	4	-478.901	6	.134	7	-.158	8	-.074	6	
345	3	max	70.659	1	-25.781	7	239.266	1	.65	4	.085	1	.132	1	
346		min	-105.965	6	-239.94	4	-481.214	6	.134	7	-.327	8	-.06	6	
347	4	max	129.88	2	235.508	8	899.918	3	.002	2	.191	1	.13	2	
348		min	-41.917	7	72.242	1	-7.292	6	-.71	9	-.185	6	-.096	7	
349	5	max	0	1	0	7	0	4	0	1	0	1	0	1	
350		min	0	1	0	6	0	1	0	1	0	1	0	1	
351	36	1	max	0	0	4	.002	6	0	1	0	1	0	1	
352		min	0	1	0	7	0	5	0	1	0	1	0	1	
353	2	max	9.655	1	-40.882	1	404.012	6	.448	8	-.003	1	.083	6	
354		min	-42.269	6	-297.655	8	-513.994	1	.066	1	-.104	8	-.071	1	
355	3	max	256.943	1	335.126	3	851.748	6	.413	9	.083	7	.235	1	
356		min	-160.562	6	-71.15	2	-516.306	1	-.516	4	-.205	4	.057	2	
357	4	max	254.345	1	334.535	3	849.436	6	.083	7	.251	6	.144	1	
358		min	-157.964	6	-13.603	6	-399.748	1	-.516	4	-.223	1	-.082	6	
359	5	max	0	1	0	6	0	4	0	1	0	1	0	1	
360		min	0	1	0	4	-.001	6	0	1	0	1	0	1	
361	37	1	max	482.333	4	276.582	6	-387.302	2	.109	6	.559	4	.289	6
362		min	66.816	7	-152.187	1	-1254.186	9	-.133	1	.151	7	-.121	1	
363	2	max	480.592	4	262.658	6	-383.642	2	.109	6	.104	2	.188	6	
364		min	74.885	7	-138.263	1	-1243.777	9	-.133	1	-.044	7	-.066	1	
365	3	max	478.851	4	248.755	6	-379.936	2	.109	6	-.039	2	.092	6	
366		min	82.954	7	-124.337	1	-1232.642	9	-.133	1	-.4	9	-.018	2	
367	4	max	477.111	4	234.831	6	-376.276	2	.109	6	-.181	2	.096	7	
368		min	91.023	7	-110.413	1	-1222.232	9	-.133	1	-.861	9	-.082	2	
369	5	max	475.37	4	220.906	6	-372.616	2	.109	6	-.322	2	.112	7	
370		min	99.091	7	-96.488	1	-1211.823	9	-.133	1	-1.317	9	-.144	2	
371	38	1	max	724.15	7	917.311	1	-68.389	2	.116	1	.306	9	1.335	1
372		min	-1154.012	2	-1050.423	6	-863.585	9	-.136	6	.092	2	-1.478	6	
373	2	max	716.098	7	903.357	1	-64.729	2	.116	1	.067	2	.994	1	
374		min	-1145.96	2	-1036.47	6	-853.175	9	-.136	6	-.066	7	-1.087	6	
375	3	max	708.046	7	889.558	1	-60.816	2	.116	1	.044	2	.658	1	
376		min	-1137.908	2	-1022.235	6	-843.286	9	-.136	6	-.334	9	-.701	6	
377	4	max	699.994	7	875.605	1	-57.156	2	.116	1	.022	2	.444	2	
378		min	-1129.856	2	-1008.282	6	-832.876	9	-.136	6	-.649	9	-.447	7	
379	5	max	691.941	7	861.652	1	-53.497	2	.116	1	0	2	.287	2	
380		min	-1121.804	2	-994.329	6	-822.467	9	-.136	6	-.959	9	-.243	7	
381	39	1	max	635.638	6	1249.975	7	-69.5	1	.164	7	.307	4	2.073	7
382		min	-1065.706	1	-1377.094	2	-862.99	8	-.185	2	.093	7	-2.215	2	
383	2	max	635.638	6	1231.375	7	-65.841	1	.164	7	.077	1	1.608	7	



Company :
 Designer :
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 Model Name :

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Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...]	LC	y-y Mome...	LC	z-z Mom...	LC	
384		min	-1065.706	1	-1358.494	2	-852.581	8	-.185	2	-.076	6	-1.702	2	
385	3	max	635.638	6	1212.675	7	-61.744	1	.164	7	.054	1	1.15	7	
386		min	-1065.706	1	-1339.794	2	-842.773	8	-.185	2	-.335	8	-1.196	2	
387	4	max	635.638	6	1194.075	7	-58.084	1	.164	7	.031	1	.699	7	
388		min	-1065.706	1	-1321.194	2	-832.364	8	-.185	2	-.649	8	-.697	2	
389	5	max	635.638	6	1175.475	7	-54.424	1	.164	7	.01	1	.284	1	
390		min	-1065.706	1	-1302.594	2	-821.954	8	-.185	2	-.959	8	-.231	6	
391	40	1	max	0	1	0	1	0	1	0	1	0	1	1	
392		min	0	1	0	1	0	1	0	1	0	1	0	1	
393	2	max	386.58	2	107.541	6	739.769	2	.442	3	.1	8	.107	2	
394		min	-356.621	7	-341.841	3	-636.332	7	.062	6	.023	1	-.092	7	
395	3	max	386.58	2	113.541	6	742.081	2	.442	3	.329	2	.165	1	
396		min	-356.621	7	-344.204	3	-634.02	7	.062	6	-.212	7	-.074	6	
397	4	max	818.219	7	740.335	1	469.254	2	.255	1	.69	2	.17	1	
398		min	-915.459	2	-516.022	6	-911.226	7	-.589	6	-.718	7	-.111	6	
399	5	max	0	1	0	1	0	1	0	1	0	1	0	1	
400		min	0	1	0	1	0	1	0	1	0	1	0	1	
401	41	1	max	0	1	0	9	.001	1	0	1	0	1	1	
402		min	0	1	0	2	0	4	0	1	0	1	0	1	
403	2	max	272.46	1	282.19	9	371.705	6	.043	4	.089	1	.042	2	
404		min	-237.155	6	-71.225	1	-348.467	1	.008	7	-.116	6	-.08	6	
405	3	max	275.058	1	283.962	9	370.46	6	.043	4	.045	6	.109	2	
406		min	-239.753	6	-72.725	1	-349.712	1	.008	7	-.023	1	-.184	7	
407	4	max	538.902	6	860.091	2	456.398	6	.018	7	.231	6	.274	2	
408		min	-627.406	1	-1028.665	7	-191.219	1	-.05	4	-.188	1	-.275	7	
409	5	max	0	1	.002	7	0	5	0	1	0	1	0	1	
410		min	0	1	0	6	-.003	1	0	1	0	1	0	1	
411	42	1	max	0	1	0	5	.001	6	0	1	0	1	1	
412		min	0	1	-.001	2	0	4	0	1	0	1	0	1	
413	2	max	194.343	6	419.522	2	405.861	1	.452	8	.046	1	.093	1	
414		min	-161.729	1	-211.466	7	-512.074	6	.034	1	-.124	6	-.105	6	
415	3	max	698.457	1	476.981	7	850.288	1	.452	8	.313	1	.329	7	
416		min	-794.837	6	-696.831	2	-400.064	6	-.542	3	-.453	6	-.467	2	
417	4	max	695.859	1	472.481	7	847.976	1	.204	6	.632	1	.151	7	
418		min	-792.239	6	-692.331	2	-402.376	6	-.542	3	-.603	6	-.207	2	
419	5	max	0	1	.001	6	0	4	0	1	0	1	0	1	
420		min	0	1	0	4	-.003	6	0	1	0	1	0	1	
421	43	1	max	923.385	2	839.015	6	-64.334	7	.071	6	.466	4	1.412	6
422		min	-1258.207	7	-958.483	1	-393.848	4	-.099	1	.095	7	-1.572	1	
423	2	max	915.316	2	825.09	6	-60.674	7	.071	6	.32	4	1.1	6	
424		min	-1250.138	7	-944.558	1	-383.439	4	-.099	1	.071	7	-1.215	1	
425	3	max	907.247	2	810.871	6	-56.671	7	.071	6	.179	3	.793	6	
426		min	-1242.069	7	-930.833	1	-372.725	4	-.099	1	.049	7	-.864	1	
427	4	max	899.178	2	796.947	6	-53.011	7	.071	6	.048	9	.492	6	
428		min	-1234	7	-916.909	1	-362.316	4	-.099	1	.004	2	-.517	1	
429	5	max	891.109	2	783.023	6	-49.352	7	.071	6	.01	7	.383	7	
430		min	-1225.931	7	-902.985	1	-351.906	4	-.099	1	-.093	4	-.354	2	
431	44	1	max	0	1	.174	6	.177	7	0	1	0	1	0	1
432		min	0	1	-.403	3	-.192	4	0	1	0	1	0	1	
433	2	max	153.168	4	84.974	6	193.777	7	0	1	.126	7	.055	1	
434		min	45.168	1	-85.023	1	-193.79	2	0	1	-.126	2	-.055	6	
435	3	max	689.269	7	314.291	3	195.227	2	.108	7	.167	7	.415	3	
436		min	-687.202	2	-17.111	6	-160.765	7	-.071	2	-.21	2	-.106	6	
437	4	max	696.037	7	314.291	3	195.227	2	.108	7	.107	2	.001	1	
438		min	-680.434	2	-17.111	6	-160.765	7	-.071	2	-.094	7	-.116	8	
439	5	max	0	1	.011	3	.005	2	0	1	0	1	0	1	
440		min	0	1	-.003	6	-.005	7	0	1	0	1	0	1	



Company :
 Designer :
 Job Number :
 Model Name :

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Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC	
441	45	1	max	0	1	2.059	6	2.409	7	0	1	0	1	0	1
442			min	0	1	-2.252	1	-2.513	2	0	1	0	1	0	1
443		2	max	550.768	8	374.859	6	548.009	7	0	1	.749	7	.513	1
444			min	216.768	1	-375.052	1	-548.113	2	0	1	-.749	2	-.512	6
445		3	max	689.221	2	365.477	3	367.503	2	.091	7	.488	7	.683	1
446			min	-689.733	7	-137.736	6	-274.784	7	-.088	2	-.603	2	-.404	6
447		4	max	695.989	2	365.477	3	367.503	2	.091	7	.049	9	.096	1
448			min	-682.965	7	-137.736	6	-274.784	7	-.088	2	-.006	2	-.18	6
449		5	max	0	1	.847	3	.52	4	0	1	0	1	0	1
450			min	0	1	-.186	6	-.311	7	0	1	0	1	0	1
451	46	1	max	0	1	.185	6	.155	7	0	1	0	1	0	1
452			min	0	1	-.307	3	-.321	4	0	1	0	1	0	1
453		2	max	153.168	8	193.785	6	84.955	7	0	1	.055	7	.126	1
454			min	45.168	6	-193.817	1	-84.981	2	0	1	-.055	2	-.126	6
455		3	max	424.846	6	75.388	1	-38.077	2	.084	6	.144	7	.21	1
456			min	-295.644	1	-125.378	6	-238.563	9	-.053	1	-.131	2	-.165	6
457		4	max	431.614	6	75.388	1	-38.077	2	.084	6	-.036	6	.194	4
458			min	-288.876	1	-125.378	6	-230.601	9	-.053	1	-.355	3	.002	7
459		5	max	0	1	.002	1	0	2	0	1	0	1	0	1
460			min	0	1	-.011	8	-.02	9	0	1	0	1	0	1
461	47	1	max	0	1	2.016	6	3.403	7	0	1	0	1	0	1
462			min	0	1	-2.171	1	-3.572	2	0	1	0	1	0	1
463		2	max	550.768	9	374.816	6	549.003	7	0	1	.75	7	.512	1
464			min	216.768	6	-374.971	1	-549.172	2	0	1	-.751	2	-.512	6
465		3	max	413.568	1	318.199	1	403.307	2	.106	2	1.199	7	.711	1
466			min	-233.047	6	-328.057	6	-595.257	7	-.115	7	-1.171	2	-.639	6
467		4	max	420.336	1	318.199	1	403.307	2	.106	2	.232	7	.194	1
468			min	-226.279	6	-328.057	6	-595.257	7	-.115	7	-.516	2	-.106	6
469		5	max	0	1	.035	1	-.172	10	0	1	0	1	0	1
470			min	0	1	-.531	8	-1.762	9	0	1	0	1	0	1
471	48	1	max	0	1	.259	8	.238	7	0	1	0	1	0	1
472			min	0	1	-.117	1	-.39	4	0	1	0	1	0	1
473		2	max	153.168	3	84.952	6	193.838	7	0	1	.126	7	.055	1
474			min	45.168	2	-84.917	1	-193.874	2	0	1	-.126	2	-.055	6
475		3	max	459.713	1	74.395	1	268.249	4	.082	2	.182	7	.088	1
476			min	-458.432	6	-207.341	8	-81.253	7	-.047	7	-.382	2	-.259	8
477		4	max	466.482	1	74.395	1	268.249	4	.082	2	.095	3	.088	7
478			min	-451.664	6	-207.341	8	-81.253	7	-.047	7	-.014	6	-.038	2
479		5	max	0	1	.003	1	.01	4	0	1	0	1	0	1
480			min	0	1	-.008	8	-.004	7	0	1	0	1	0	1
481	49	1	max	0	1	2.634	6	2.041	7	0	1	0	1	0	1
482			min	0	1	-2.446	1	-2.16	2	0	1	0	1	0	1
483		2	max	550.768	3	548.234	6	374.841	7	0	1	.512	7	.749	1
484			min	216.768	2	-548.046	1	-374.96	2	0	1	-.512	2	-.749	6
485		3	max	624.206	6	209.316	1	348.39	2	.084	1	.465	7	.449	1
486			min	-624.886	1	-402.685	6	-203.286	7	-.079	6	-.646	2	-.69	6
487		4	max	630.974	6	209.316	1	348.39	2	.084	1	.134	7	.111	3
488			min	-618.117	1	-402.685	6	-203.286	7	-.079	6	-.08	2	-.036	6
489		5	max	0	1	.211	1	.62	4	0	1	0	1	0	1
490			min	0	1	-.757	8	-.235	7	0	1	0	1	0	1
491	50	1	max	0	1	.026	4	.105	6	0	1	0	1	0	1
492			min	0	1	-.022	7	-.107	1	0	1	0	1	0	1
493		2	max	19.768	4	18.224	2	18.305	6	0	1	.015	6	.015	7
494			min	6.768	6	-18.222	7	-18.307	1	0	1	-.015	1	-.015	2
495		3	max	733.819	6	268.059	2	34.219	1	.204	1	.039	6	.222	2
496			min	-303.216	1	-346.3	7	-37.705	6	-.207	6	-.039	1	-.28	7
497		4	max	1041.207	6	352.788	2	37.116	6	.193	1	.011	6	.025	6



Company :
 Designer :
 Job Number :
 Model Name :

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Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC	
498		min	-420.912	1	-438.547	7	-46.001	1	-.2	6	-.018	1	-.013	1	
499	5	max	0	1	.002	7	.016	1	0	1	0	1	0	1	
500		min	0	1	-.005	4	-.016	6	0	1	0	1	0	1	
501	51	1	max	0	1	.425	2	1.436	6	0	1	0	1	0	1
502		min	0	1	-.442	9	-1.42	1	0	1	0	1	0	1	
503	2	max	265.768	3	220.225	2	326.236	6	0	1	.446	6	.291	7	
504		min	78.768	6	-220.237	7	-326.22	1	0	1	-.446	1	-.291	2	
505	3	max	579.76	7	125.255	8	227.049	1	.205	6	.795	6	.131	8	
506		min	-804.844	2	-49.353	1	-232.714	6	-.219	1	-.796	1	-.049	1	
507	4	max	586.528	7	125.255	8	227.049	1	.205	6	.417	6	.045	7	
508		min	-798.076	2	-49.353	1	-232.714	6	-.219	1	-.427	1	-.084	2	
509	5	max	0	1	.213	9	.366	1	0	1	0	1	0	1	
510		min	0	1	-.118	2	-.508	8	0	1	0	1	0	1	
511	52	1	max	0	1	.094	4	.045	7	0	1	0	1	0	1
512		min	0	1	-.11	9	-.059	4	0	1	0	1	0	1	
513	2	max	32.768	3	18.293	2	18.231	6	0	1	.015	6	.015	7	
514		min	6.768	2	-18.295	7	-18.233	1	0	1	-.015	1	-.015	2	
515	3	max	873.745	2	146.786	2	313.77	2	.136	6	.203	7	.114	6	
516		min	-440.042	7	-111.365	7	-245.159	7	-.143	1	-.252	2	-.084	1	
517	4	max	1428.994	2	238.76	2	331.445	2	.143	7	.028	1	.018	6	
518		min	-803.136	7	-203.171	7	-253.161	7	-.147	2	-.015	6	-.019	1	
519	5	max	0	1	.018	9	.013	4	0	1	0	1	0	1	
520		min	0	1	-.015	4	-.007	7	0	1	0	1	0	1	
521	53	1	max	0	1	1.155	2	.608	6	0	1	0	1	0	1
522		min	0	1	-1.135	7	-.608	1	0	1	0	1	0	1	
523	2	max	265.768	8	325.955	2	202.208	6	0	1	.276	6	.445	7	
524		min	78.768	2	-325.935	7	-202.208	1	0	1	-.276	1	-.445	2	
525	3	max	722.88	6	185.504	7	36.819	6	.158	2	.322	7	.617	7	
526		min	-956.082	1	-224.504	2	-110.018	3	-.172	7	-.256	2	-.653	2	
527	4	max	729.648	6	185.504	7	36.819	6	.158	2	.167	7	.315	7	
528		min	-949.314	1	-224.504	2	-110.018	3	-.172	7	-.199	2	-.288	2	
529	5	max	0	8	.255	7	.203	1	0	1	0	8	0	7	
530		min	0	2	-.375	4	-.232	8	0	1	0	1	0	4	
531	54	1	max	0	1	.083	4	.075	8	0	1	0	1	0	1
532		min	0	1	-.088	9	-.052	3	0	1	0	1	0	1	
533	2	max	32.768	3	18.281	2	18.246	6	0	1	.015	6	.015	7	
534		min	6.768	7	-18.28	7	-18.244	1	0	1	-.015	1	-.015	2	
535	3	max	728.108	3	185.99	1	233.342	6	.212	2	.239	1	.151	1	
536		min	-270.443	6	-146.854	6	-295.447	1	-.217	7	-.192	6	-.125	6	
537	4	max	1227.759	1	199.645	1	332.675	6	.164	2	.031	2	.008	1	
538		min	-628.033	6	-151.777	6	-398.916	1	-.171	7	-.038	7	-.022	9	
539	5	max	0	1	.017	9	.006	1	0	1	0	1	0	1	
540		min	0	1	-.012	2	-.012	8	0	1	0	1	0	1	
541	55	1	max	0	1	1.29	2	.49	6	0	1	0	1	0	1
542		min	0	1	-1.294	7	-.551	3	0	1	0	1	0	1	
543	2	max	265.768	3	326.09	2	202.09	6	0	1	.276	6	.445	7	
544		min	78.768	1	-326.094	7	-202.114	1	0	1	-.276	1	-.445	2	
545	3	max	932.111	2	93.48	7	223.914	7	.201	7	.392	2	.526	7	
546		min	-1166.725	7	-123.379	2	-159.283	2	-.213	2	-.455	7	-.565	2	
547	4	max	938.88	2	93.48	7	223.914	7	.201	7	.133	2	.374	7	
548		min	-1159.957	7	-123.379	2	-159.283	2	-.213	2	-.091	7	-.365	2	
549	5	max	0	5	.373	7	.289	9	0	1	0	2	0	7	
550		min	0	7	-.364	2	-.158	2	0	1	0	9	0	2	
551	56	1	max	849.105	6	52.808	2	51.195	1	.002	1	.074	7	.103	6
552		min	-1339.334	1	-35.813	7	-67.818	6	-.001	6	-.077	2	-.063	1	
553	2	max	851.595	6	47.408	2	56.595	1	.002	1	.044	7	.045	6	
554		min	-1336.844	1	-30.413	7	-73.218	6	-.001	6	-.047	2	-.023	1	



Company :
 Designer :
 Job Number :
 Model Name :

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Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k...]	LC	y-y Mome...	LC	z-z Mom...	LC	
555	3	max	854.084	6	42.008	2	61.995	1	.002	1	.014	6	.025	2	
556		min	-1334.355	1	-25.013	7	-78.618	6	-.001	6	-.017	1	-.02	7	
557	4	max	856.574	6	36.608	2	67.395	1	.002	1	.02	2	.053	1	
558		min	-1331.865	1	-19.613	7	-84.018	6	-.001	6	-.023	7	-.066	6	
559	5	max	859.064	6	31.208	2	72.795	1	.002	1	.056	2	.088	1	
560		min	-1329.375	1	-14.213	7	-89.418	6	-.001	6	-.06	7	-.118	6	
561	57	1	max	1264.687	2	57.115	1	58.248	7	.002	7	.113	2	.083	1
562		min	-1743.482	7	-39.488	6	-75.742	2	-.002	2	-.115	7	-.04	6	
563	2	max	1267.177	2	47.762	1	67.601	7	.002	7	.072	2	.042	1	
564		min	-1740.993	7	-30.134	6	-85.095	2	-.002	2	-.074	7	-.018	6	
565	3	max	1269.667	2	38.409	1	76.954	7	.002	7	.023	2	.037	7	
566		min	-1738.503	7	-20.781	6	-94.448	2	-.002	2	-.026	7	-.033	2	
567	4	max	1272.157	2	29.056	1	86.307	7	.002	7	.03	7	.068	7	
568		min	-1736.013	7	-11.428	6	-103.801	2	-.002	2	-.034	2	-.081	2	
569	5	max	1274.647	2	32.299	7	95.66	7	.002	7	.094	7	.1	7	
570		min	-1733.523	7	-16.102	2	-113.154	2	-.002	2	-.098	2	-.132	2	
571	58	1	max	37.708	2	23.444	1	22.244	2	.003	2	0	1	0	1
572		min	-43.067	7	-24.073	6	-28.859	7	-.002	7	0	1	0	1	
573	2	max	37.708	2	16.203	7	25.564	2	.003	2	.006	1	.029	2	
574		min	-43.067	7	-17.101	2	-25.539	7	-.002	7	-.009	6	-.031	7	
575	3	max	37.708	2	16.203	7	28.883	2	.003	2	.012	2	.06	2	
576		min	-43.067	7	-17.101	2	-22.219	7	-.002	7	-.013	7	-.059	7	
577	4	max	37.708	2	19.127	6	32.203	2	.003	2	.021	2	.094	2	
578		min	-43.067	7	-19.756	1	-18.9	7	-.002	7	-.016	7	-.085	7	
579	5	max	28.852	7	29.659	1	356.372	2	.003	6	0	1	0	1	
580		min	-30.268	2	-18.364	6	-511.286	7	-.003	1	0	1	0	1	
581	59	1	max	38.476	1	19.751	1	26.237	6	.002	1	0	1	0	1
582		min	-43.596	6	-19.101	6	-19.55	1	-.002	6	0	1	0	1	
583	2	max	44.715	1	16.146	1	22.916	6	.002	1	.011	2	.03	6	
584		min	-49.835	6	-15.497	6	-22.871	1	-.002	6	-.008	7	-.028	1	
585	3	max	50.953	1	14.855	7	19.596	6	.002	1	.011	2	.054	6	
586		min	-56.074	6	-13.837	2	-26.191	1	-.002	6	-.01	7	-.055	1	
587	4	max	57.192	1	25.653	7	16.276	6	.002	1	.016	6	.074	6	
588		min	-62.313	6	-24.635	2	-29.511	1	-.002	6	-.022	1	-.082	1	
589	5	max	21.659	2	12.234	1	549.635	2	.002	2	0	1	0	1	
590		min	-19.935	1	-28.993	7	-391.252	7	-.002	7	0	1	0	1	
591	60	1	max	36.981	7	29.05	7	23.894	2	.002	6	0	1	0	1
592		min	-41.198	2	-28.604	2	-17.105	7	-.002	1	0	1	0	1	
593	2	max	43.215	7	18.249	7	20.575	2	.002	6	.008	1	.032	2	
594		min	-47.433	2	-17.803	2	-20.424	7	-.002	1	-.005	6	-.03	7	
595	3	max	49.45	7	15.696	6	17.255	2	.002	6	.012	1	.054	2	
596		min	-53.667	2	-14.76	1	-23.744	7	-.002	1	-.011	6	-.055	7	
597	4	max	55.684	7	19.295	6	13.935	2	.002	6	.014	2	.066	2	
598		min	-59.902	2	-18.359	1	-27.063	7	-.002	1	-.02	7	-.075	6	
599	5	max	27.203	1	19.284	7	542.966	1	.003	7	0	6	0	6	
600		min	-27.244	6	-24.011	2	-394.134	6	-.003	2	0	1	0	1	
601	61	1	max	0	.034	2	.037	6	0	1	0	1	0	1	
602		min	0	1	-.032	7	-.039	3	0	1	0	1	0	1	
603	2	max	19.768	9	18.234	2	18.237	6	0	1	.015	6	.015	7	
604		min	6.768	2	-18.232	7	-18.239	1	0	1	-.015	1	-.015	2	
605	3	max	680.849	1	50.178	7	25.889	1	.158	1	.039	6	.053	7	
606		min	-986.994	6	-60.663	2	-28.956	6	-.147	6	-.036	1	-.064	2	
607	4	max	687.617	1	31.978	7	7.689	1	.158	1	.007	6	.02	2	
608		min	-980.226	6	-42.463	2	-10.756	6	-.147	6	-.008	1	-.014	7	
609	5	max	0	1	.005	7	.006	1	0	1	0	1	0	1	
610		min	0	1	-.005	2	-.005	6	0	1	0	1	0	1	
611	62	1	max	0	.041	2	.031	6	0	1	0	1	0	1	

Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...]	LC	y-y Mome...	LC	z-z Mom...	LC
612		min	0	1	-.042	7	-.031	1	0	1	0	1	0	1
613	2	max	19.768	4	18.241	2	18.231	6	0	1	.015	6	.015	7
614		min	6.768	1	-18.242	7	-18.231	1	0	1	-.015	1	-.015	2
615	3	max	722.935	7	15.459	7	61.891	1	.184	7	.057	6	.019	7
616		min	-1018.371	2	-12.83	2	-50.896	6	-.176	2	-.068	1	-.017	2
617	4	max	729.703	7	12.325	1	43.691	1	.184	7	.018	1	.01	6
618		min	-1011.603	2	-9.456	6	-32.696	6	-.176	2	-.011	6	-.012	1
619	5	max	0	1	.006	7	.005	1	0	1	0	1	0	1
620		min	0	1	-.006	2	-.005	6	0	1	0	1	0	1
621	63	1	max	0	.04	2	.037	8	0	1	0	1	0	1
622		min	0	1	-.039	7	-.034	1	0	1	0	1	0	1
623	2	max	19.768	4	18.24	2	18.235	6	0	1	.015	6	.015	7
624		min	6.768	7	-18.239	7	-18.234	1	0	1	-.015	1	-.015	2
625	3	max	268.261	2	52.589	7	24.559	1	.154	6	.039	7	.064	7
626		min	-646.168	7	-37.773	2	-37.728	6	-.147	1	-.026	2	-.046	2
627	4	max	275.029	2	34.389	7	23.972	2	.154	6	.012	2	.007	1
628		min	-639.4	7	-19.573	2	-37.161	7	-.147	1	-.022	7	-.013	6
629	5	max	0	2	.006	7	.005	1	0	1	0	1	0	1
630		min	0	7	-.006	2	-.006	8	0	1	0	1	0	1

Envelope Member Section Stresses

Member	Sec		Axial[ksi]	LC	y Shear[...]	LC	z Shear[...]	LC	y-Top[ksi]	LC	y-Bot[ksi]	LC	z-Top[ksi]	LC	z-Bot[ksi]	LC	
1	1	1	max	.304	4	.205	7	.09	7	1.014	8	.034	7	5.858	2	2.706	7
2		min	-.07	1	-.442	2	-.082	2	-.034	7	-1.014	8	-7.079	7	-2.24	2	
3	2	max	.304	4	.242	7	.09	7	2.512	7	4.138	2	2.732	7	1.145	2	
4		min	-.07	1	-.404	2	-.081	2	-4.138	2	-2.512	7	-2.995	2	-1.045	7	
5	3	max	1.649	6	.997	2	2.317	2	7.92	6	3.844	1	4.122	1	1.481	6	
6		min	-.866	1	-1.024	7	-2.318	7	-3.844	1	-7.92	6	-3.874	6	-1.576	1	
7	4	max	.221	7	.38	7	.076	7	2.799	2	3.751	7	1.872	2	.696	7	
8		min	-.157	2	-.253	2	-.064	2	-3.751	7	-2.799	2	-1.821	7	-.716	2	
9	5	max	.227	7	.591	1	.069	7	.657	8	-.179	1	3.918	7	.947	2	
10		min	-.169	2	-.681	6	-.056	2	.179	1	-.657	8	-2.478	2	-1.498	7	
11	2	1	max	.345	1	.247	6	.089	2	.651	3	.146	6	6.079	1	2.703	6
12		min	-.134	6	-.468	1	-.079	7	-.146	6	-.651	3	-7.07	6	-2.324	1	
13	2	max	.373	1	.286	6	.108	6	2.888	6	4.582	1	3.11	6	1.265	1	
14		min	-.161	6	-.428	1	-.1	1	-4.582	1	-2.888	6	-3.309	1	-1.189	6	
15	3	max	1.666	2	.792	1	2.092	1	7.476	2	3.353	7	3.54	7	1.236	2	
16		min	-.887	7	-.832	6	-2.094	6	-3.353	7	-7.476	2	-3.234	2	-1.354	7	
17	4	max	.353	2	.494	2	.1	2	2.751	7	3.693	2	2.47	1	.909	6	
18		min	-.288	7	-.369	7	-.087	7	-3.693	2	-2.751	7	-2.378	6	-.944	1	
19	5	max	.311	2	.444	7	.061	6	.659	3	-.178	6	3.033	6	.627	1	
20		min	-.253	7	-.527	2	-.05	1	.178	6	-.659	3	-1.64	1	-1.16	6	
21	3	1	max	.372	7	.265	2	.085	1	.687	7	.278	2	4.809	6	2.249	1
22		min	-.161	2	-.482	7	-.077	6	-.278	2	-.687	7	-5.883	1	-1.839	6	
23	2	max	.4	7	.302	2	.102	2	2.953	2	4.621	7	2.905	2	1.153	7	
24		min	-.189	2	-.444	7	-.094	7	-4.621	7	-2.953	2	-3.015	7	-1.11	2	
25	3	max	1.595	7	.827	6	2.047	6	8.043	7	3.993	2	3.474	2	1.227	7	
26		min	-.826	2	-.852	1	-2.046	1	-3.993	2	-8.043	7	-3.21	7	-1.328	2	
27	4	max	.308	1	.458	1	.088	1	2.956	6	3.845	1	2.761	7	1.003	2	
28		min	-.266	6	-.299	6	-.074	6	-3.845	1	-2.956	6	-2.624	2	-1.056	7	
29	5	max	.276	1	.428	2	.085	2	1.163	3	-.28	7	5.171	2	1.324	7	
30		min	-.245	6	-.562	7	-.074	7	.28	7	-1.163	3	-3.462	7	-1.977	2	
31	4	1	max	.179	1	.46	1	.71	1	1.391	6	1.192	1	13.79	6	18.796	1
32		min	-.074	6	-.189	6	-.498	6	-1.192	1	-1.391	6	-18.796	1	-13.79	6	
33	2	max	.179	1	.46	1	.709	1	1.202	6	.732	1	4.216	6	5.175	1	



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Envelope Member Section Stresses (Continued)

Member	Sec		Axial[ksi]	LC y	Shear...	LC z	Shear...	LC y-Top[ksi]	LC y-Bot[ksi]	LC z-Top[ksi]	LC z-Bot[ksi]	LC				
34		min	-.074	6	-.189	6	-.499	6	-.732	1	-1.202	6	-5.175	1	-4.216	6
35		max	.179	1	.46	1	.708	1	1.249	4	1.081	1	12.111	6	-3.273	5
36		min	-.089	2	-.28	6	-.872	6	-1.081	1	-1.249	4	3.273	5	-12.111	6
37		max	.128	7	.206	2	.6	1	.679	6	.875	1	4.916	1	4.641	6
38		min	-.089	2	-.28	6	-.873	6	-.875	1	-.679	6	-4.641	6	-4.916	1
39		max	.128	7	.206	2	.599	1	.482	2	.769	7	16.421	1	21.409	6
40		min	-.089	2	-.28	6	-.874	6	-.769	7	-.482	2	-21.409	6	-16.421	1
41	5	max	1.681	6	2.35	2	.536	6	.089	1	.144	6	28.085	1	10.457	6
42		min	-1.663	1	-1.131	7	-.55	1	-.144	6	-.089	1	-27.353	6	-10.737	1
43		max	1.681	6	2.366	2	.536	6	13.399	2	6.403	7	1.765	6	.671	1
44		min	-1.663	1	-1.115	7	-.55	1	-6.403	7	-13.399	2	-1.756	1	-.675	6
45		max	0	9	.01	9	.002	4	.003	4	-.001	7	.005	4	.002	9
46		min	0	4	.004	2	-.002	9	.001	7	-.003	4	-.005	9	-.002	4
47		max	1.779	2	1.022	1	.63	7	12.931	6	6.169	1	1.848	2	.701	7
48		min	-1.785	7	-2.238	6	-.634	2	-6.169	1	-12.931	6	-1.833	7	-.707	2
49		max	1.779	2	1.038	1	.63	7	.192	6	.282	1	32.344	7	12.443	2
50		min	-1.785	7	-2.222	6	-.634	2	-.282	1	-.192	6	-32.548	2	-12.365	7
51	6	max	.164	9	.52	7	1.022	7	1.167	1	.952	6	21.394	2	26.189	7
52		min	-.042	2	-.246	2	-.817	2	-.952	6	-1.167	1	-26.189	7	-21.394	2
53		max	.164	9	.52	7	1.021	7	1.28	1	.791	6	5.696	2	6.571	7
54		min	-.042	2	-.246	2	-.818	2	-.791	6	-1.28	1	-6.571	7	-5.696	2
55		max	.092	2	.343	7	.781	7	.968	2	1.118	7	13.841	2	8.27	7
56		min	-.059	7	-.414	2	-1.06	2	-1.118	7	-.968	2	-8.27	7	-13.841	2
57		max	.092	2	.343	7	.78	7	.553	2	.775	7	6.715	7	6.526	2
58		min	-.059	7	-.414	2	-1.061	2	-.775	7	-.553	2	-6.526	2	-6.715	7
59		max	.092	2	.343	7	.779	7	.323	1	.601	6	21.683	7	26.909	2
60		min	-.059	7	-.414	2	-1.062	2	-.601	6	-.323	1	-26.909	2	-21.683	7
61	7	max	1.521	1	2.161	7	.572	1	.062	6	.118	1	30.011	6	11.309	1
62		min	-1.532	6	-.961	2	-.58	6	-.118	1	-.062	6	-29.582	1	-11.473	6
63		max	1.521	1	2.176	7	.572	1	12.454	7	5.566	2	1.521	2	.578	7
64		min	-1.532	6	-.945	2	-.58	6	-5.566	2	-12.454	7	-1.511	7	-.581	2
65		max	0	1	-.003	2	0	1	.003	4	-.001	7	0	1	0	1
66		min	0	1	-.01	9	0	1	.001	7	-.003	4	0	1	0	1
67		max	1.543	1	.889	7	.584	6	12.248	2	5.458	7	1.505	7	.567	2
68		min	-1.558	6	-2.108	2	-.59	1	-5.458	7	-12.248	2	-1.484	2	-.575	7
69		max	1.543	1	.904	7	.584	6	.244	2	.33	7	30.251	6	11.682	1
70		min	-1.558	6	-2.092	2	-.59	1	-.33	7	-.244	2	-30.558	1	-11.565	6
71	8	max	.17	4	.402	6	.895	6	1.394	7	1.149	2	16.143	1	23.67	6
72		min	-.061	7	-.158	1	-.564	1	-1.149	2	-1.394	7	-23.67	6	-16.143	1
73		max	.17	4	.402	6	.894	6	1.309	7	.83	2	5.337	1	6.548	6
74		min	-.061	7	-.158	1	-.565	1	-.83	2	-1.309	7	-6.548	6	-5.337	1
75		max	.17	4	.402	6	.893	6	1.223	7	.51	2	10.558	6	5.485	1
76		min	-.061	7	-.158	1	-.566	1	-.51	2	-1.223	7	-5.485	1	-10.558	6
77		max	.123	1	.321	6	.499	6	.832	7	1.141	2	6.722	6	6.408	1
78		min	-.088	6	-.345	1	-.901	1	-1.141	2	-.832	7	-6.408	1	-6.722	6
79		max	.123	1	.321	6	.498	6	.693	7	1.035	2	16.264	6	23.66	1
80		min	-.088	6	-.345	1	-.901	1	-1.035	2	-.693	7	-23.66	1	-16.264	6
81	9	max	1.792	7	2.297	6	.625	7	.116	2	.166	7	32.743	2	12.277	7
82		min	-1.792	2	-1.099	1	-.636	2	-.166	7	-.116	2	-32.112	7	-12.518	2
83		max	1.792	7	2.312	6	.625	7	13.176	6	6.302	1	1.813	7	.69	2
84		min	-1.792	2	-1.084	1	-.636	2	-6.302	1	-13.176	6	-1.805	2	-.693	7
85		max	0	9	.01	3	.002	9	.003	8	-.001	1	.005	9	.002	4
86		min	0	4	.003	6	-.002	4	.001	1	-.003	8	-.005	4	-.002	9
87		max	1.628	6	1.057	2	.541	1	12.972	7	6.25	2	1.718	6	.652	1
88		min	-1.615	1	-2.265	7	-.542	6	-6.25	2	-12.972	7	-1.704	1	-.657	6
89		max	1.628	6	1.073	2	.541	1	.199	1	.281	6	27.657	1	10.585	6
90		min	-1.615	1	-2.25	7	-.542	6	-.281	6	-.199	1	-27.687	6	-10.573	1



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Envelope Member Section Stresses (Continued)

Member	Sec		Axial[ksi]	LC y	Shear[...]	LC z	Shear[...]	LC y-Top[ksi]	LC y-Bot[ksi]	LC z-Top[ksi]	LC z-Bot[ksi]	LC					
91	10	1	max	.779	2	.881	6	1.786	1	7.627	1	6.419	6	12.551	1	15.488	6
92			min	-1.006	7	-.843	1	-2.74	6	-6.419	6	-7.627	1	-12.933	6	-15.03	1
93		2	max	.28	1	.668	6	.108	1	7.427	6	7.629	1	7.518	6	8.057	1
94			min	-1.3	8	-.695	1	-.047	6	-7.629	1	-7.427	6	-6.728	1	-9.004	6
95		3	max	.315	1	.159	1	.175	7	7.522	6	7.177	1	2.38	6	3.386	1
96			min	-1.372	8	-.165	6	-.198	2	-7.177	1	-7.522	6	-2.828	1	-2.85	6
97		4	max	.263	1	.36	1	.202	6	1.965	6	2.212	1	1.99	7	1.942	2
98			min	-1.296	8	-.364	6	-.193	1	-2.212	1	-1.965	6	-1.622	2	-2.384	7
99		5	max	.886	7	.569	1	1.887	7	5.193	1	4.597	6	7.493	1	11.37	6
100			min	-.962	2	-.622	6	-1.092	2	-4.597	6	-5.193	1	-9.494	6	-8.974	1
101	11	1	max	.959	1	.749	2	1.997	6	7.392	7	6.517	2	11.462	7	14.368	2
102			min	-1.205	6	-.734	7	-2.929	1	-6.517	2	-7.392	7	-11.997	2	-13.727	7
103		2	max	.184	7	.6	2	.108	7	5.584	2	5.789	7	6.487	2	6.791	7
104			min	-1.276	4	-.613	7	-.056	2	-5.789	7	-5.584	2	-5.671	7	-7.768	2
105		3	max	.306	7	.117	7	.156	6	6.267	2	5.9	7	2.32	2	3.317	7
106			min	-1.368	4	-.122	2	-.182	1	-5.9	7	-6.267	2	-2.769	7	-2.778	2
107		4	max	.185	7	.278	7	.13	2	1.213	2	1.451	7	2.38	2	2.496	7
108			min	-1.274	4	-.276	2	-.124	7	-1.451	7	-1.213	2	-2.085	7	-2.851	2
109		5	max	1.085	2	.422	7	2.566	2	3.427	7	2.702	2	4.734	7	7.806	2
110			min	-1.165	7	-.495	2	-1.728	7	-2.702	2	-3.427	7	-6.518	2	-5.669	7
111	12	1	max	.959	7	.756	7	2.728	2	6.124	2	5.043	7	10.826	2	13.232	7
112			min	-1.203	2	-.695	2	-3.652	7	-5.043	7	-6.124	2	-11.049	7	-12.965	2
113		2	max	.268	2	.563	7	.094	8	6.333	7	6.602	2	6.493	7	6.907	2
114			min	-1.296	9	-.592	2	-.02	1	-6.601	2	-6.333	7	-5.767	2	-7.776	7
115		3	max	.206	2	.131	2	.144	1	6.491	7	6.149	2	1.363	1	2.141	2
116			min	-1.345	9	-.136	7	-.169	6	-6.149	2	-6.491	7	-1.788	2	-1.632	1
117		4	max	.225	2	.291	2	.19	7	2.485	7	2.709	2	2.519	1	2.622	6
118			min	-1.29	9	-.3	7	-.181	2	-2.709	2	-2.485	7	-2.189	6	-3.016	1
119		5	max	1.075	1	.464	2	2.408	1	4.395	2	3.567	7	4.289	2	8.677	7
120			min	-1.127	6	-.501	7	-1.645	6	-3.567	7	-4.395	2	-7.246	7	-5.136	2
121	13	1	max	.386	1	1.224	1	.762	1	5.613	2	5.888	7	13.435	6	17.589	1
122			min	-.507	6	-1.496	6	-.564	6	-5.888	7	-5.613	2	-17.589	1	-13.435	6
123		2	max	.386	1	1.224	1	.762	1	5.816	2	6.36	7	2.597	6	2.963	1
124			min	-.507	6	-1.496	6	-.565	6	-6.36	7	-5.816	2	-2.963	1	-2.597	6
125		3	max	.461	7	1.224	1	.761	1	6.019	2	6.832	7	11.648	1	-2.644	10
126			min	-.509	2	-1.496	6	-.577	7	-6.832	7	-6.019	2	2.644	10	-11.648	1
127		4	max	.461	7	1.125	2	.387	1	5.03	6	4.914	1	4.846	1	4.477	6
128			min	-.509	2	-1.053	7	-.675	6	-4.914	1	-5.03	6	-4.477	6	-4.846	1
129		5	max	.461	7	1.125	2	.386	1	4.188	6	4.004	1	12.269	1	17.435	6
130			min	-.509	2	-1.053	7	-.676	6	-4.004	1	-4.188	6	-17.435	6	-12.269	1
131	14	1	max	.221	6	1.401	7	.886	7	4.732	7	5.169	2	15.601	2	19.598	7
132			min	-.346	2	-1.668	2	-.694	2	-5.169	2	-4.732	7	-19.598	7	-15.601	2
133		2	max	.221	6	1.401	7	.886	7	6.132	7	6.837	2	2.263	2	2.59	7
134			min	-.346	2	-1.668	2	-.695	2	-6.837	2	-6.132	7	-2.59	7	-2.263	2
135		3	max	.388	2	1.575	7	.643	7	5.67	2	5.736	7	11.617	2	5.708	7
136			min	-.446	7	-1.503	2	-.936	2	-5.736	7	-5.67	2	-5.708	7	-11.617	2
137		4	max	.388	2	1.575	7	.642	7	4.168	2	4.162	7	6.634	7	6.362	2
138			min	-.446	7	-1.503	2	-.937	2	-4.162	7	-4.168	2	-6.362	2	-6.634	7
139		5	max	.388	2	1.575	7	.642	7	2.665	2	2.588	7	18.961	7	24.355	2
140			min	-.446	7	-1.503	2	-.938	2	-2.588	7	-2.665	2	-24.355	2	-18.961	7
141	15	1	max	.398	2	.915	2	.565	6	5.772	6	6.231	1	12.21	1	14.729	6
142			min	-.511	7	-1.15	7	-.501	1	-6.231	1	-5.772	6	-14.729	6	-12.21	1
143		2	max	.398	2	.915	2	.564	6	6.58	6	7.267	1	2.833	7	4.241	2
144			min	-.511	7	-1.15	7	-.502	1	-7.267	1	-6.58	6	-4.241	2	-2.833	7
145		3	max	.398	2	.915	2	.563	6	7.388	6	8.304	1	6.874	6	7.009	1
146			min	-.511	7	-1.15	7	-.503	1	-8.304	1	-7.388	6	-7.009	1	-6.874	6
147		4	max	.482	1	1.403	6	.479	6	3.367	7	3.101	2	7.27	6	7.27	1



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Envelope Member Section Stresses (Continued)

Member	Sec		Axial[ksi]	LC y	Shear...	LC z	Shear...	LC y-Top[ksi]	LC y-Bot[ksi]	LC z-Top[ksi]	LC z-Bot[ksi]	LC					
148		min	-.533	6	-1.37	1	-.646	1	-3.101	2	-3.367	7	-7.27	6			
149	5	max	.482	1	1.403	6	.478	6	3.222	7	2.927	2	16.438	6	19.653	1	
150		min	-.533	6	-1.37	1	-.647	1	-2.927	2	-3.222	7	-19.653	1	-16.438	6	
151	16	1	max	.95	1	.168	7	.082	6	1.108	2	5.211	9	8.014	1	9.793	6
152		min	-1.76	6	-.084	2	-.184	1	-5.211	9	-1.108	2	-7.567	6	-10.372	1	
153	2	max	.953	1	.143	9	.112	6	.206	2	2.854	9	4.965	1	6.173	6	
154		min	-1.757	6	-.054	2	-.213	1	-2.854	9	-.206	2	-4.77	6	-6.426	1	
155	3	max	.957	1	.132	9	.141	6	.969	1	1.445	6	1.496	1	2.01	6	
156		min	-1.754	6	-.025	2	-.243	1	-1.445	6	-.969	1	-1.553	6	-1.936	1	
157	4	max	.96	1	.131	8	.171	6	2.761	1	1.857	6	2.084	6	3.097	1	
158		min	-1.751	6	-.016	1	-.273	1	-1.857	6	-2.761	1	-2.393	1	-2.697	6	
159	5	max	.963	1	.131	8	.2	6	4.772	1	2.489	6	6.142	6	8.674	1	
160		min	-1.748	6	-.016	1	-.302	1	-2.489	6	-4.772	1	-6.703	1	-7.948	6	
161	17	1	max	.601	2	.166	6	.136	1	5.2	1	4.955	6	2.705	7	4.945	2
162		min	-.935	7	-.159	1	-.106	6	-4.955	6	-5.2	1	-3.821	2	-3.501	7	
163	2	max	.604	2	.166	6	.166	1	2.901	1	2.83	6	1.064	7	2.14	2	
164		min	-.932	7	-.159	1	-.135	6	-2.83	6	-2.901	1	-1.654	2	-1.376	7	
165	3	max	.607	2	.166	6	.196	1	.51	10	.485	6	.094	2	.381	10	
166		min	-.929	7	-.159	1	-.165	6	-.485	6	-.51	10	-.294	10	-.121	2	
167	4	max	.611	2	.166	6	.225	1	2.08	6	2.356	1	1.421	2	1.241	7	
168		min	-.926	7	-.159	1	-.195	6	-2.356	1	-2.08	6	-.959	7	-1.839	2	
169	5	max	.614	2	.166	6	.255	1	4.864	6	5.315	1	2.328	2	1.734	7	
170		min	-.923	7	-.159	1	-.224	6	-5.315	1	-4.864	6	-1.34	7	-3.013	2	
171	18	1	max	.947	6	.035	1	.093	6	0	1	0	1	0	1	0	1
172		min	-.481	1	-.029	6	-.091	1	0	1	0	1	0	1	0	1	1
173	2	max	.95	6	.035	1	.064	6	.827	1	.797	6	.702	6	.747	1	1
174		min	-.478	1	-.029	6	-.061	1	-.797	6	-.827	1	-.577	1	-.908	6	6
175	3	max	.953	6	.052	2	.032	1	1.44	1	1.387	6	1.005	6	.963	1	1
176		min	-.475	1	-.059	7	-.035	6	-1.387	6	-1.44	1	-.744	1	-1.301	6	6
177	4	max	.953	6	.029	6	.062	1	.83	1	.803	6	.713	6	.753	1	1
178		min	-.461	1	-.035	1	-.064	6	-.803	6	-.83	1	-.582	1	-.922	6	6
179	5	max	.956	6	.029	6	.091	1	0	1	0	1	0	1	0	1	1
180		min	-.458	1	-.035	1	-.094	6	0	1	0	1	0	1	0	1	1
181	19	1	max	.372	2	.017	7	.024	1	0	1	0	1	0	1	0	1
182		min	-.766	7	-.02	2	-.031	6	0	1	0	1	0	1	0	1	1
183	2	max	.375	2	.01	2	-.001	6	.071	9	.025	2	.236	1	.497	6	6
184		min	-.763	7	-.013	7	-.011	3	-.025	2	-.071	9	-.384	6	-.306	1	1
185	3	max	.817	2	.042	7	.041	1	.272	1	.228	6	.245	2	.697	7	7
186		min	-1.389	7	-.007	1	-.034	6	-.228	6	-.272	1	-.539	7	-.317	2	2
187	4	max	.82	2	.013	7	.013	3	.072	9	.031	2	.152	1	.388	6	6
188		min	-1.385	7	-.01	2	-.005	6	-.031	2	-.072	9	-.3	6	-.196	1	1
189	5	max	.823	2	.02	2	.025	6	0	1	0	1	0	1	0	1	1
190		min	-1.382	7	-.017	7	-.018	1	0	1	0	1	0	1	0	1	1
191	20	1	max	4.245	6	.101	1	.097	6	0	1	0	1	0	1	0	1
192		min	-2.574	1	-.119	6	-.115	1	0	1	0	1	0	1	0	1	1
193	2	max	4.248	6	.073	1	.07	6	2.189	1	2.196	6	.075	2	1.11	9	9
194		min	-2.571	1	-.079	6	-.075	1	-2.196	6	-2.189	1	-.858	9	-.097	2	2
195	3	max	4.251	6	.045	1	.042	6	3.56	1	3.575	6	-.09	1	1.011	9	9
196		min	-2.568	1	-.039	6	-.035	1	-3.575	6	-3.56	1	-.781	9	.116	1	1
197	4	max	4.255	6	.058	7	.029	9	4.114	1	4.135	6	.765	7	.913	2	2
198		min	-2.565	1	-.041	2	.005	1	-4.135	6	-4.114	1	-.706	2	-.989	7	7
199	5	max	4.425	6	.655	6	.493	1	0	1	0	1	0	1	0	1	1
200		min	-2.5	1	-.616	1	-.413	6	0	1	0	1	0	1	0	1	1
201	21	1	max	4.331	6	.096	1	.057	4	0	1	0	1	0	1	0	1
202		min	-2.294	1	-.096	6	-.019	7	0	1	0	1	0	1	0	1	1
203	2	max	4.334	6	.048	1	.029	4	.71	1	1.025	6	1.961	1	1.757	6	6
204		min	-2.291	1	-.048	6	-.01	7	-1.025	6	-.71	1	-1.358	6	-2.537	1	1



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Envelope Member Section Stresses (Continued)

Member	Sec		Axial[ksi]	LC y	Shear[...]	LC z	Shear[...]	LC y-Top[ksi]	LC y-Bot[ksi]	LC z-Top[ksi]	LC z-Bot[ksi]	LC					
205	3	max	4.337	6	0	1	0	1	.947	1	1.367	6	2.614	1	2.343	6	
206		min	-2.288	1	0	1	0	1	-1.367	6	-0.947	1	-1.811	6	-3.383	1	
207	4	max	4.341	6	.048	6	.01	7	.71	1	1.025	6	1.961	1	1.757	6	
208		min	-2.285	1	-.048	1	-.029	4	-1.025	6	-.71	1	-1.358	6	-2.537	1	
209	5	max	4.344	6	.096	6	.019	7	0	1	0	1	0	1	0	1	
210		min	-2.282	1	-.096	1	-.057	4	0	1	0	1	0	1	0	1	
211	22	1	max	.669	7	.152	2	.213	7	6.289	7	6.071	2	1.629	6	3.576	1
212		min	-1.028	2	-.144	7	-.185	2	-6.071	2	-6.289	7	-2.763	1	-2.109	6	
213	2	max	.672	7	.166	2	.239	7	3.489	7	3.427	2	.652	2	1.578	7	
214		min	-1.025	2	-.159	7	-.21	2	-3.427	2	-3.489	7	-1.22	7	-.844	2	
215	3	max	.675	7	.181	2	.265	7	.51	5	.482	2	.236	1	.391	6	
216		min	-1.022	2	-.174	7	-.236	2	-.482	2	-.51	5	-.302	6	-.306	1	
217	4	max	.678	7	.196	2	.29	7	2.762	2	3.012	7	1.359	7	1.172	2	
218		min	-1.019	2	-.188	7	-.262	2	-3.012	7	-2.762	2	-.906	2	-1.758	7	
219	5	max	.681	7	.211	2	.316	7	6.306	2	6.713	7	2.879	7	2.479	2	
220		min	-1.016	2	-.203	7	-.287	2	-6.712	7	-6.306	2	-1.915	2	-3.725	7	
221	23	1	max	1.068	1	.03	7	.064	2	0	1	0	1	0	1	0	1
222		min	-.594	6	-.023	2	-.062	7	0	1	0	1	0	1	0	1	1
223	2	max	1.071	1	.034	6	.041	1	.53	7	.494	2	.501	2	.49	7	7
224		min	-.591	6	-.027	1	-.039	6	-.494	2	-.53	7	-.379	7	-.648	2	2
225	3	max	1.074	1	.053	1	.028	6	1.139	6	1.063	1	.848	2	.781	7	7
226		min	-.588	6	-.06	6	-.03	1	-1.063	1	-1.139	6	-.604	7	-1.097	2	2
227	4	max	1.053	1	.027	1	.043	6	.529	6	.491	1	.537	1	.535	6	6
228		min	-.553	6	-.034	6	-.045	1	-.491	1	-.529	6	-.413	6	-.695	1	1
229	5	max	1.056	1	.023	2	.059	7	0	1	0	1	0	1	0	1	1
230		min	-.55	6	-.03	7	-.061	2	0	1	0	1	0	1	0	1	1
231	24	1	max	.628	7	.022	6	.022	7	0	1	0	1	0	1	0	1
232		min	-1.044	2	-.025	1	-.027	2	0	1	0	1	0	1	0	1	1
233	2	max	.631	7	.011	7	0	1	.118	4	.042	7	.184	7	.413	2	2
234		min	-1.041	2	-.016	2	-.014	4	-.042	7	-.118	4	-.319	2	-.239	7	7
235	3	max	1.115	7	.031	2	.034	7	.282	7	.285	2	.215	7	.7	4	4
236		min	-1.714	2	-.026	1	-.029	2	-.285	2	-.282	7	-.541	4	-.278	7	7
237	4	max	1.118	7	.016	2	.013	8	.11	4	.052	1	.122	7	.367	4	4
238		min	-1.711	2	-.011	7	-.003	2	-.052	1	-.11	4	-.284	4	-.158	7	7
239	5	max	1.121	7	.025	1	.022	2	0	1	0	1	0	1	0	1	1
240		min	-1.708	2	-.022	6	-.018	7	0	1	0	1	0	1	0	1	1
241	25	1	max	4.698	1	.084	7	.066	1	0	1	0	1	0	1	0	1
242		min	-3.079	6	-.102	2	-.083	6	0	1	0	1	0	1	0	1	1
243	2	max	4.712	1	.053	7	.047	2	1.604	7	1.592	2	.104	7	1.11	4	4
244		min	-3.086	6	-.059	2	-.053	7	-1.592	2	-1.604	7	-.857	4	-.134	7	7
245	3	max	4.726	1	.05	6	.036	2	2.557	7	2.539	2	.032	7	1.075	4	4
246		min	-3.094	6	-.045	1	-.03	7	-2.539	2	-2.557	7	-.83	4	-.041	7	7
247	4	max	4.74	1	.057	6	.028	8	2.95	6	3.069	1	.841	6	1.03	1	1
248		min	-3.102	6	-.04	1	-.006	7	-3.069	1	-2.95	6	-.796	1	-1.088	6	6
249	5	max	5.19	1	.549	2	.497	7	0	1	0	1	0	1	0	1	1
250		min	-3.292	6	-.513	7	-.411	2	0	1	0	1	0	1	0	1	1
251	26	1	max	5.892	2	.076	7	.058	3	0	1	0	1	0	1	0	1
252		min	-3.85	7	-.076	2	-.02	6	0	1	0	1	0	1	0	1	1
253	2	max	5.903	2	.038	7	.029	3	.497	6	.816	1	2.099	7	1.947	2	2
254		min	-3.855	7	-.038	2	-.01	6	-.816	1	-.497	6	-1.505	2	-2.717	7	7
255	3	max	5.914	2	0	1	0	1	.662	6	1.088	1	2.799	7	2.596	2	2
256		min	-3.859	7	0	1	0	1	-1.088	1	-.662	6	-2.006	2	-3.622	7	7
257	4	max	5.925	2	.038	2	.01	6	.497	6	.816	1	2.099	7	1.947	2	2
258		min	-3.864	7	-.038	7	-.029	3	-.816	1	-.497	6	-1.505	2	-2.717	7	7
259	5	max	5.936	2	.076	2	.02	6	0	1	0	1	0	1	0	1	1
260		min	-3.869	7	-.076	7	-.058	3	0	1	0	1	0	1	0	1	1
261	27	1	max	.833	6	.152	7	.204	6	4.902	2	3.371	7	1.894	1	5.337	6

Envelope Member Section Stresses (Continued)

Member	Sec		Axial[ksi]	LC y	Shear...	LC z	Shear...	LC y-Top[ksi]	LC y-Bot[ksi]	LC z-Top[ksi]	LC z-Bot[ksi]	LC				
262		min	-1.328	1	-.163	2	-.121	1	-3.371	7	-4.902	2	-4.124	6	-2.451	1
263		max	.836	6	.137	7	.219	6	2.706	2	1.876	7	.794	1	2.671	8
264		min	-1.325	1	-.148	2	-.136	1	-1.876	7	-2.706	2	-2.064	8	-1.028	1
265		max	.839	6	.123	7	.234	6	.632	11	.3	7	.209	7	.539	2
266		min	-1.322	1	-.133	2	-.151	1	-.3	7	-.632	11	-.417	2	-.27	7
267		max	.842	6	.115	1	.248	6	1.856	1	2.409	6	1.755	6	1.221	1
268		min	-1.319	1	-.126	6	-.166	1	-2.409	6	-1.856	1	-.944	1	-2.271	6
269		max	.846	6	.141	1	.263	6	4.093	1	5.34	6	3.407	6	2.048	1
270		min	-1.316	1	-.152	6	-.181	1	-5.34	6	-4.093	1	-1.582	1	-4.41	6
271	28	max	1.429	7	.027	2	.091	7	0	1	0	1	0	1	0	1
272		min	-.96	2	-.021	7	-.089	2	0	1	0	1	0	1	0	1
273		max	1.433	7	.042	2	.066	7	.816	2	.79	7	.713	7	.763	2
274		min	-.957	2	-.036	7	-.063	2	-.79	7	-.816	2	-.589	2	-.923	7
275		max	1.436	7	.05	7	.04	2	1.594	2	1.549	7	.945	7	.885	2
276		min	-.954	2	-.056	2	-.043	7	-1.549	7	-1.594	2	-.684	2	-1.223	7
277		max	1.418	7	.036	7	.066	2	.837	2	.815	7	.759	7	.814	2
278		min	-.922	2	-.042	2	-.069	7	-.815	7	-.837	2	-.629	2	-.983	7
279		max	1.421	7	.021	7	.091	2	0	1	0	1	0	1	0	1
280		min	-.919	2	-.027	2	-.095	7	0	1	0	1	0	1	0	1
281	29	max	.541	6	.018	2	.019	2	0	1	0	1	0	1	0	1
282		min	-.937	1	-.021	7	-.027	7	0	1	0	1	0	1	0	1
283		max	.544	6	.01	6	-.001	7	.083	3	.059	6	.237	2	.507	7
284		min	-.934	1	-.014	1	-.013	9	-.059	6	-.083	3	-.392	7	-.307	2
285		max	1.032	6	.04	1	.038	2	.224	2	.179	1	.211	6	.646	3
286		min	-1.599	1	-.035	6	-.029	7	-.179	1	-.224	2	-.499	3	-.273	6
287		max	1.035	6	.014	1	.012	2	.08	3	.05	6	.164	2	.412	9
288		min	-1.596	1	-.01	6	-.004	7	-.05	6	-.08	3	-.319	9	-.212	2
289		max	1.038	6	.021	7	.022	7	0	1	0	1	0	1	0	1
290		min	-1.593	1	-.018	2	-.014	2	0	1	0	1	0	1	0	1
291	30	max	5.74	7	.077	2	.098	7	0	1	0	1	0	1	0	1
292		min	-4.142	2	-.096	7	-.115	2	0	1	0	1	0	1	0	1
293		max	5.75	7	.066	2	.067	7	1.984	2	2.012	7	.141	6	1.137	3
294		min	-4.147	2	-.073	7	-.072	2	-2.012	7	-1.984	2	-.879	3	-.183	6
295		max	5.761	7	.056	2	.036	7	3.321	2	3.373	7	-.037	6	1.06	3
296		min	-4.152	2	-.05	7	-.029	2	-3.373	7	-3.321	2	-.819	3	.047	6
297		max	5.772	7	.046	1	.033	4	4.013	2	4.085	7	.735	2	.889	7
298		min	-4.156	2	-.028	6	0	6	-4.085	7	-4.013	2	-.687	7	-.951	2
299		max	6.044	7	.593	7	.338	2	0	1	0	1	0	1	0	1
300		min	-4.158	2	-.55	2	-.259	7	0	1	0	1	0	1	0	1
301	31	max	4.879	1	.076	2	.058	8	0	1	0	1	0	1	0	1
302		min	-2.808	6	-.076	7	-.02	1	0	1	0	1	0	1	0	1
303		max	4.893	1	.038	2	.029	8	.787	2	1.098	7	1.56	6	1.229	1
304		min	-2.815	6	-.038	7	-.01	1	-1.098	7	-.787	2	-.949	1	-2.019	6
305		max	4.907	1	0	1	0	1	1.049	2	1.464	7	2.08	6	1.638	1
306		min	-2.823	6	0	1	0	1	-1.464	7	-1.049	2	-1.266	1	-2.692	6
307		max	4.921	1	.038	7	.01	1	.787	2	1.098	7	1.56	6	1.229	1
308		min	-2.831	6	-.038	2	-.029	8	-1.098	7	-.787	2	-.949	1	-2.019	6
309		max	4.935	1	.076	7	.02	1	0	1	0	1	0	1	0	1
310		min	-2.839	6	-.076	2	-.058	8	0	1	0	1	0	1	0	1
311	32	max	.261	9	.255	1	-.057	7	.084	7	.568	4	8.089	4	-.568	7
312		min	.03	2	-.147	6	-.663	4	-.568	4	-.084	7	1.561	7	-2.941	4
313		max	.26	9	.243	1	-.054	7	.022	7	.379	4	.885	7	.244	2
314		min	.034	2	-.136	6	-.655	4	-.379	4	-.022	7	-.671	2	-.322	7
315		max	.26	9	.232	1	-.052	7	.254	1	.359	6	.242	7	2.844	4
316		min	.037	2	-.124	6	-.647	4	-.359	6	-.254	1	-7.821	4	-.088	7
317		max	.259	9	.22	1	-.049	7	.533	1	.505	6	-.367	7	5.683	4
318		min	.04	2	-.112	6	-.639	4	-.505	6	-.533	1	-15.627	4	.134	7



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Envelope Member Section Stresses (Continued)

Member	Sec		Axial[ksi]	LC y	Shear[...]	LC z	Shear[...]	LC y-Top[ksi]	LC y-Bot[ksi]	LC z-Top[ksi]	LC z-Bot[ksi]	LC	
319	5	max	.258	9	.208	1	-.046	7	.798	1	.636	6	
320		min	.044	2	-.101	6	-.631	4	-.636	6	-.798	1	
321	33	1	max	.258	8	.315	7	-.058	6	.32	2	.706	7
322			min	.043	1	-.209	2	-.663	3	-.706	7	-.32	2
323		2	max	.258	8	.3	7	-.055	6	.164	6	.417	1
324			min	.043	1	-.194	2	-.655	3	-.417	1	-.164	6
325		3	max	.258	8	.284	7	-.052	6	.227	6	.348	1
326			min	.043	1	-.178	2	-.646	3	-.348	1	-.227	6
327		4	max	.258	8	.269	7	-.049	6	.377	7	.37	2
328			min	.043	1	-.163	2	-.639	3	-.37	2	-.377	7
329		5	max	.258	8	.253	7	-.047	6	.7	7	.561	2
330			min	.043	1	-.147	2	-.631	3	-.561	2	-.7	7
331	34	1	max	0	1	0	1	0	1	0	1	0	1
332			min	0	1	0	1	0	1	0	1	0	1
333		2	max	0	2	.479	4	1.226	7	1.715	2	1.47	7
334			min	-.027	9	.109	7	-1.044	2	-1.47	7	-1.715	2
335		3	max	0	2	.479	4	1.23	7	2.567	2	1.071	7
336			min	-.027	9	.109	7	-1.04	2	-1.071	7	-2.567	2
337		4	max	.181	7	.028	1	.767	7	2.084	7	1.132	2
338			min	-.116	2	-.552	8	-1.508	2	-1.132	2	-2.084	7
339		5	max	0	1	0	1	0	1	0	1	0	1
340			min	0	1	0	1	0	1	0	1	0	1
341	35	1	max	0	1	0	6	0	1	0	1	0	1
342			min	0	1	0	7	0	4	0	1	0	1
343		2	max	.045	1	-.05	7	.398	1	1.193	6	1.363	1
344			min	-.068	6	-.393	4	-.79	6	-1.363	1	-1.193	6
345		3	max	.047	1	-.043	7	.395	1	.961	6	2.128	1
346			min	-.07	6	-.396	4	-.794	6	-2.128	1	-.961	6
347		4	max	.086	2	.388	8	1.484	3	1.536	7	2.081	2
348			min	-.028	7	.119	1	-.012	6	-2.081	2	-1.536	7
349		5	max	0	1	0	7	0	4	0	1	0	1
350			min	0	1	0	6	0	1	0	1	0	1
351	36	1	max	0	1	0	4	0	6	0	1	0	1
352			min	0	1	0	7	0	5	0	1	0	1
353		2	max	.006	1	-.067	1	.666	6	1.136	1	1.336	6
354			min	-.028	6	-.491	8	-.848	1	-1.336	6	-1.136	1
355		3	max	.17	1	.553	3	1.405	6	-.917	2	3.781	1
356			min	-.106	6	-.117	2	-.852	1	-3.781	1	.917	2
357		4	max	.168	1	.552	3	1.401	6	1.321	6	2.317	1
358			min	-.105	6	-.022	6	-.659	1	-2.317	1	-1.321	6
359		5	max	0	1	0	6	0	4	0	1	0	1
360			min	0	1	0	4	0	6	0	1	0	1
361	37	1	max	.202	4	.23	6	-.294	2	.332	1	.794	6
362			min	.028	7	-.127	1	-.952	9	-.794	6	-.332	1
363		2	max	.201	4	.219	6	-.291	2	.183	1	.516	6
364			min	.031	7	-.115	1	-.944	9	-.516	6	-.183	1
365		3	max	.2	4	.207	6	-.288	2	.049	2	.252	6
366			min	.035	7	-.104	1	-.936	9	-.252	6	-.049	2
367		4	max	.2	4	.196	6	-.286	2	.224	2	.264	7
368			min	.038	7	-.092	1	-.928	9	-.264	7	-.224	2
369		5	max	.199	4	.184	6	-.283	2	.395	2	.306	7
370			min	.041	7	-.08	1	-.92	9	-.306	7	-.395	2
371	38	1	max	.303	7	.764	1	-.052	2	4.063	6	3.669	1
372			min	-.483	2	-.875	6	-.656	9	-3.669	1	-4.063	6
373		2	max	.3	7	.753	1	-.049	2	2.987	6	2.731	1
374			min	-.479	2	-.864	6	-.648	9	-2.731	1	-2.987	6
375		3	max	.296	7	.741	1	-.046	2	1.927	6	1.807	1



Company :
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Envelope Member Section Stresses (Continued)

Member	Sec		Axial[ksi]	LC y	Shear...	LC z	Shear...	LC y-Top[ksi]	LC y-Bot[ksi]	LC z-Top[ksi]	LC z-Bot[ksi]	LC					
376		min	-.476	2	-.852	6	-.64	9	-1.807	1	-1.927	6	-8.225	9	-.391	2	
377	4	max	.293	7	.73	1	-.043	2	1.229	7	1.22	2	.531	2	5.801	9	
378		min	-.473	2	-.84	6	-.632	9	-1.22	2	-1.229	7	-15.954	9	-.193	2	
379	5	max	.29	7	.718	1	-.041	2	.668	7	.788	2	.021	2	8.577	9	
380		min	-.469	2	-.829	6	-.624	9	-.788	2	-.668	7	-23.587	9	-.008	2	
381	39	1	max	.266	6	1.042	7	-.053	1	6.086	2	5.698	7	7.543	4	-.832	7
382		min	-.446	1	-1.148	2	-.655	8	-5.698	7	-6.086	2	2.287	7	-2.743	4	
383	2	max	.266	6	1.026	7	-.05	1	4.677	2	4.419	7	1.903	1	.681	6	
384		min	-.446	1	-1.132	2	-.647	8	-4.419	7	-4.677	2	-1.873	6	-.692	1	
385	3	max	.266	6	1.011	7	-.047	1	3.287	2	3.16	7	1.317	1	2.996	8	
386		min	-.446	1	-1.116	2	-.64	8	-3.16	7	-3.287	2	-8.239	8	-.479	1	
387	4	max	.266	6	.995	7	-.044	1	1.915	2	1.92	7	.764	1	5.805	8	
388		min	-.446	1	-1.101	2	-.632	8	-1.92	7	-1.915	2	-15.963	8	-.278	1	
389	5	max	.266	6	.98	7	-.041	1	.635	6	.779	1	.245	1	8.579	8	
390		min	-.446	1	-1.085	2	-.624	8	-.779	1	-.635	6	-23.592	8	-.089	1	
391	40	1	max	0	1	0	1	0	1	0	1	0	1	0	1	1	
392		min	0	1	0	1	0	1	0	1	0	1	0	1	0	1	
393	2	max	.256	2	.177	6	1.22	2	1.473	7	1.712	2	1.613	8	-.364	1	
394		min	-.236	7	-.564	3	-1.05	7	-1.712	2	-1.473	7	.364	1	-1.613	8	
395	3	max	.256	2	.187	6	1.224	2	1.189	6	2.654	1	5.286	2	3.405	7	
396		min	-.236	7	-.568	3	-1.046	7	-2.654	1	-1.189	6	-3.405	7	-5.286	2	
397	4	max	.542	7	1.221	1	.774	2	1.777	6	2.737	1	11.077	2	11.529	7	
398		min	-.606	2	-.851	6	-1.503	7	-2.737	1	-1.777	6	-11.529	7	-11.077	2	
399	5	max	0	1	0	1	0	1	0	1	0	1	0	1	0	1	
400		min	0	1	0	1	0	1	0	1	0	1	0	1	0	1	
401	41	1	max	0	1	0	9	0	1	0	1	0	1	0	1	1	
402		min	0	1	0	2	0	4	0	1	0	1	0	1	0	1	
403	2	max	.335	1	.774	9	1.02	6	3.056	6	1.611	2	6.525	1	10.993	6	
404		min	-.292	6	-.195	1	-.956	1	-1.611	2	-3.056	6	-8.494	6	-8.444	1	
405	3	max	.338	1	.779	9	1.016	6	7.064	7	4.189	2	3.312	6	2.156	1	
406		min	-.295	6	-.199	1	-.959	1	-4.189	2	-7.064	7	-1.666	1	-4.286	6	
407	4	max	.663	6	2.359	2	1.252	6	10.534	7	10.503	2	16.911	6	17.827	1	
408		min	-.772	1	-2.821	7	-.524	1	-10.503	2	-10.534	7	-13.776	1	-21.885	6	
409	5	max	0	1	0	7	0	5	0	1	0	1	0	1	0	1	
410		min	0	1	0	6	0	1	0	1	0	1	0	1	0	1	
411	42	1	max	0	1	0	5	0	6	0	1	0	1	0	1	1	
412		min	0	1	0	2	0	4	0	1	0	1	0	1	0	1	
413	2	max	.129	6	.692	2	.669	1	1.683	6	1.487	1	.736	1	1.997	6	
414		min	-.107	1	-.349	7	-.845	6	-1.487	1	-1.683	6	-1.997	6	-.736	1	
415	3	max	.463	1	.787	7	1.402	1	7.508	2	5.28	7	5.033	1	7.275	6	
416		min	-.526	6	-1.149	2	-.66	6	-5.28	7	-7.508	2	-7.275	6	-5.033	1	
417	4	max	.461	1	.779	7	1.399	1	3.323	2	2.42	7	10.148	1	9.692	6	
418		min	-.525	6	-1.142	2	-.664	6	-2.42	7	-3.323	2	-9.692	6	-10.148	1	
419	5	max	0	1	0	6	0	4	0	1	0	1	0	1	0	1	
420		min	0	1	0	4	0	6	0	1	0	1	0	1	0	1	
421	43	1	max	.386	2	.699	6	-.049	7	4.321	1	3.88	6	11.464	4	-.847	7
422		min	-.526	7	-.799	1	-.299	4	-3.88	6	-4.321	1	2.33	7	-4.169	4	
423	2	max	.383	2	.688	6	-.046	7	3.34	1	3.022	6	7.88	4	-.638	7	
424		min	-.523	7	-.787	1	-.291	4	-3.022	6	-3.34	1	1.754	7	-2.865	4	
425	3	max	.38	2	.676	6	-.043	7	2.374	1	2.18	6	4.408	3	-.441	7	
426		min	-.52	7	-.776	1	-.283	4	-2.18	6	-2.374	1	1.214	7	-1.603	3	
427	4	max	.376	2	.664	6	-.04	7	1.422	1	1.351	6	1.171	9	-.035	2	
428		min	-.516	7	-.764	1	-.275	4	-1.351	6	-1.422	1	.097	2	-.426	9	
429	5	max	.373	2	.653	6	-.037	7	.973	2	1.052	7	.236	7	.832	4	
430		min	-.513	7	-.752	1	-.267	4	-1.052	7	-.973	2	-2.289	4	-.086	7	
431	44	1	max	0	1	0	6	0	7	0	1	0	1	0	1	1	
432		min	0	1	0	3	0	4	0	1	0	1	0	1	0	1	



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Envelope Member Section Stresses (Continued)

Member	Sec		Axial[ksi]	LC y	Shear[...]	LC z	Shear[...]	LC y-Top[ksi]	LC y-Bot[ksi]	LC z-Top[ksi]	LC z-Bot[ksi]	LC					
433	2	max	.15	4	.167	6	.38	7	1.262	6	1.264	1	2.873	7	2.873	2	
434		min	.044	1	-.167	1	-.38	2	-1.264	1	-1.262	6	-2.873	2	-2.873	7	
435	3	max	.676	7	.616	3	.383	2	2.421	6	9.452	3	3.807	7	4.793	2	
436		min	-.674	2	-.034	6	-.315	7	-9.452	3	-2.421	6	-4.793	2	-3.807	7	
437	4	max	.682	7	.616	3	.383	2	2.637	8	.034	1	2.432	2	2.143	7	
438		min	-.667	2	-.034	6	-.315	7	-.034	1	-2.637	8	-2.143	7	-2.432	2	
439	5	max	0	1	0	3	0	2	0	1	0	1	0	1	0	1	
440		min	0	1	0	6	0	7	0	1	0	1	0	1	0	1	
441	45	1	max	0	1	.004	6	.005	7	0	1	0	1	0	1	0	1
442		min	0	1	-.004	1	-.005	2	0	1	0	1	0	1	0	1	
443	2	max	.54	8	.735	6	1.075	7	11.666	6	11.673	1	17.051	7	17.055	2	
444		min	.213	1	-.735	1	-1.075	2	-11.673	1	-11.666	6	-17.055	2	-17.051	7	
445	3	max	.676	2	.717	3	.721	2	9.196	6	15.552	1	11.111	7	13.744	2	
446		min	-.676	7	-.27	6	-.539	7	-15.552	1	-9.196	6	-13.744	2	-11.111	7	
447	4	max	.682	2	.717	3	.721	2	4.098	6	2.187	1	1.106	9	.143	2	
448		min	-.67	7	-.27	6	-.539	7	-2.187	1	-4.098	6	-.143	2	-1.106	9	
449	5	max	0	1	.002	3	.001	4	0	1	0	1	0	1	0	1	
450		min	0	1	0	6	0	7	0	1	0	1	0	1	0	1	
451	46	1	max	0	1	0	6	0	7	0	1	0	1	0	1	0	1
452		min	0	1	0	3	0	4	0	1	0	1	0	1	0	1	
453	2	max	.15	8	.38	6	.167	7	2.873	6	2.874	1	1.261	7	1.262	2	
454		min	.044	6	-.38	1	-.167	2	-2.874	1	-2.873	6	-1.262	2	-1.261	7	
455	3	max	.417	6	.148	1	-.075	2	3.767	6	4.78	1	3.272	7	2.993	2	
456		min	-.29	1	-.246	6	-.468	9	-4.78	1	-3.767	6	-2.993	2	-3.272	7	
457	4	max	.423	6	.148	1	-.075	2	-.05	7	4.423	4	-.828	6	8.096	3	
458		min	-.283	1	-.246	6	-.452	9	-4.423	4	.05	7	-8.096	3	.828	6	
459	5	max	0	1	0	1	0	2	0	1	0	1	0	1	0	1	
460		min	0	1	0	8	0	9	0	1	0	1	0	1	0	1	
461	47	1	max	0	1	.004	6	.007	7	0	1	0	1	0	1	0	1
462		min	0	1	-.004	1	-.007	2	0	1	0	1	0	1	0	1	
463	2	max	.54	9	.735	6	1.076	7	11.664	6	11.67	1	17.088	7	17.094	2	
464		min	.213	6	-.735	1	-1.077	2	-11.67	1	-11.664	6	-17.094	2	-17.088	7	
465	3	max	.405	1	.624	1	.791	2	14.547	6	16.196	1	27.305	7	26.681	2	
466		min	-.228	6	-.643	6	-1.167	7	-16.196	1	-14.547	6	-26.681	2	-27.305	7	
467	4	max	.412	1	.624	1	.791	2	2.406	6	4.419	1	5.275	7	11.755	2	
468		min	-.222	6	-.643	6	-1.167	7	-4.419	1	-2.406	6	-11.755	2	-5.275	7	
469	5	max	0	1	0	1	0	10	0	1	0	1	0	1	0	1	
470		min	0	1	-.001	8	-.003	9	0	1	0	1	0	1	0	1	
471	48	1	max	0	1	0	8	0	7	0	1	0	1	0	1	0	1
472		min	0	1	0	1	0	4	0	1	0	1	0	1	0	1	
473	2	max	.15	3	.167	6	.38	7	1.261	6	1.26	1	2.875	7	2.876	2	
474		min	.044	2	-.167	1	-.38	2	-1.26	1	-1.261	6	-2.876	2	-2.875	7	
475	3	max	.451	1	.146	1	.526	4	5.898	8	2.013	1	4.136	7	8.704	2	
476		min	-.449	6	-.407	8	-.159	7	-2.013	1	-5.898	8	-8.704	2	-4.136	7	
477	4	max	.457	1	.146	1	.526	4	.87	2	2.013	7	2.157	3	.318	6	
478		min	-.443	6	-.407	8	-.159	7	-2.013	7	-.87	2	-.318	6	-2.157	3	
479	5	max	0	1	0	1	0	4	0	1	0	1	0	1	0	1	
480		min	0	1	0	8	0	7	0	1	0	1	0	1	0	1	
481	49	1	max	0	1	.005	6	.004	7	0	1	0	1	0	1	0	1
482		min	0	1	-.005	1	-.004	2	0	1	0	1	0	1	0	1	
483	2	max	.54	3	1.075	6	.735	7	17.059	6	17.052	1	11.665	7	11.67	2	
484		min	.213	2	-1.075	1	-.735	2	-17.052	1	-17.059	6	-11.67	2	-11.665	7	
485	3	max	.612	6	.41	1	.683	2	15.723	6	10.222	1	10.581	7	14.709	2	
486		min	-.613	1	-.79	6	-.399	7	-10.222	1	-15.723	6	-14.709	2	-10.581	7	
487	4	max	.619	6	.41	1	.683	2	.82	6	2.528	3	3.058	7	1.816	2	
488		min	-.606	1	-.79	6	-.399	7	-2.528	3	-.82	6	-1.816	2	-3.058	7	
489	5	max	0	1	0	1	.001	4	0	1	0	1	0	1	0	1	



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Envelope Member Section Stresses (Continued)

Member	Sec		Axial[ksi]	LC y	Shear...	LC z	Shear...	LC y-Top[ksi]	LC y-Bot[ksi]	LC z-Top[ksi]	LC z-Bot[ksi]	LC
490		min	0	1	-.001	8	0	7	0	1	0	1
491	50	max	0	1	0	4	0	6	0	1	0	1
492		min	0	1	0	7	0	1	0	1	0	1
493		max	.019	4	.036	2	.036	6	.338	2	.338	7
494		min	.007	6	-.036	7	-.036	1	-.338	7	-.338	2
495		max	.719	6	.526	2	.067	1	6.38	7	5.064	2
496		min	-.297	1	-.679	7	-.074	6	-5.064	2	-6.38	7
497		max	1.021	6	.692	2	.073	6	.304	1	.563	6
498		min	-.413	1	-.86	7	-.09	1	-.563	6	-.304	1
499		max	0	1	0	7	0	1	0	1	0	1
500		min	0	1	0	4	0	6	0	1	0	1
501	51	max	0	1	0	2	.003	6	0	1	0	1
502		min	0	1	0	9	-.003	1	0	1	0	1
503		max	.261	3	.432	2	.64	6	6.62	2	6.62	7
504		min	.077	6	-.432	7	-.64	1	-6.62	7	-6.62	2
505		max	.568	7	.246	8	.445	1	1.117	1	2.984	8
506		min	-.789	2	-.097	1	-.456	6	-2.984	8	-1.117	1
507		max	.575	7	.246	8	.445	1	1.91	2	1.021	7
508		min	-.782	2	-.097	1	-.456	6	-1.021	7	-1.91	2
509		max	0	1	0	9	0	1	0	1	0	1
510		min	0	1	0	2	0	8	0	1	0	1
511	52	max	0	1	0	4	0	7	0	1	0	1
512		min	0	1	0	9	0	4	0	1	0	1
513		max	.032	3	.036	2	.036	6	.34	2	.34	7
514		min	.007	2	-.036	7	-.036	1	-.34	7	-.34	2
515		max	.857	2	.288	2	.615	2	1.923	1	2.586	6
516		min	-.431	7	-.218	7	-.481	7	-2.586	6	-1.923	1
517		max	1.401	2	.468	2	.65	2	.422	1	.411	6
518		min	-.787	7	-.398	7	-.496	7	-.411	6	-.422	1
519		max	0	1	0	9	0	4	0	1	0	1
520		min	0	1	0	4	0	7	0	1	0	1
521	53	max	0	1	.002	2	.001	6	0	1	0	1
522		min	0	1	-.002	7	-.001	1	0	1	0	1
523		max	.261	8	.639	2	.396	6	10.14	2	10.139	7
524		min	.077	2	-.639	7	-.396	1	-10.139	7	-10.14	2
525		max	.709	6	.364	7	.072	6	14.878	2	14.045	7
526		min	-.937	1	-.44	2	-.216	3	-14.045	7	-14.878	2
527		max	.715	6	.364	7	.072	6	6.569	2	7.18	7
528		min	-.931	1	-.44	2	-.216	3	-7.18	7	-6.569	2
529		max	0	8	0	7	0	1	0	4	0	7
530		min	0	2	0	4	0	8	0	7	0	4
531	54	max	0	1	0	4	0	8	0	1	0	1
532		min	0	1	0	9	0	3	0	1	0	1
533		max	.032	3	.036	2	.036	6	.34	2	.34	7
534		min	.007	7	-.036	7	-.036	1	-.34	7	-.34	2
535		max	.714	3	.365	1	.458	6	2.84	6	3.445	1
536		min	-.265	6	-.288	6	-.579	1	-3.445	1	-2.84	6
537		max	1.204	1	.391	1	.652	6	.495	9	.177	1
538		min	-.616	6	-.298	6	-.782	1	-.177	1	-.495	9
539		max	0	1	0	9	0	1	0	1	0	1
540		min	0	1	0	2	0	8	0	1	0	1
541	55	max	0	1	.003	2	0	6	0	1	0	1
542		min	0	1	-.003	7	-.001	3	0	1	0	1
543		max	.261	3	.639	2	.396	6	10.145	2	10.145	7
544		min	.077	1	-.639	7	-.396	1	-10.145	7	-10.145	2
545		max	.914	2	.183	7	.439	7	12.874	2	11.98	7
546		min	-1.144	7	-.242	2	-.312	2	-11.98	7	-12.874	2

Envelope Member Section Stresses (Continued)

Member	Sec		Axial[ksi]	LC y	Shear[...]	LC z	Shear[...]	LC y-Top[ksi]	LC y-Bot[ksi]	LC z-Top[ksi]	LC z-Bot[ksi]	LC					
547	4	max	.92	2	.183	7	.439	7	8.307	2	8.52	7	3.023	2	2.08	7	
548		min	-1.137	7	-.242	2	-.312	2	-8.52	7	-8.307	2	-2.08	7	-3.023	2	
549	5	max	0	5	0	7	0	9	0	2	0	7	0	2	0	9	
550		min	0	7	0	2	0	2	0	7	0	2	0	9	0	2	
551	56	1	max	1.044	6	.145	2	.14	1	2.434	1	3.967	6	5.442	7	7.305	2
552		min	-1.647	1	-.098	7	-.186	6	-3.967	6	-2.434	1	-5.644	2	-7.042	7	
553	2	max	1.047	6	.13	2	.155	1	.863	1	1.724	6	3.22	7	4.439	2	
554		min	-1.644	1	-.083	7	-.201	6	-1.724	6	-.863	1	-3.43	2	-4.166	7	
555	3	max	1.051	6	.115	2	.17	1	.764	7	.959	2	1.006	6	1.574	1	
556		min	-1.641	1	-.069	7	-.216	6	-.959	2	-.764	7	-1.217	1	-1.302	6	
557	4	max	1.054	6	.1	2	.185	1	2.52	6	2.038	1	1.46	2	2.182	7	
558		min	-1.638	1	-.054	7	-.23	6	-2.038	1	-2.52	6	-1.686	7	-1.889	2	
559	5	max	1.057	6	.086	2	.2	1	4.521	6	3.368	1	4.136	2	5.654	7	
560		min	-1.635	1	-.039	7	-.245	6	-3.368	1	-4.521	6	-4.369	7	-5.352	2	
561	57	1	max	1.556	2	.157	1	.16	7	1.55	6	3.186	1	8.317	2	10.883	7
562		min	-2.145	7	-.108	6	-.208	2	-3.186	1	-1.55	6	-8.41	7	-10.763	2	
563	2	max	1.559	2	.131	1	.185	7	.702	6	1.621	1	5.297	2	7.04	7	
564		min	-2.141	7	-.083	6	-.233	2	-1.621	1	-.702	6	-5.44	7	-6.855	2	
565	3	max	1.562	2	.105	1	.211	7	1.258	2	1.431	7	1.704	2	2.455	7	
566		min	-2.138	7	-.057	6	-.259	2	-1.431	7	-1.258	2	-1.897	7	-2.205	2	
567	4	max	1.565	2	.08	1	.237	7	3.111	2	2.6	7	2.22	7	3.189	2	
568		min	-2.135	7	-.031	6	-.285	2	-2.6	7	-3.111	2	-2.464	2	-2.873	7	
569	5	max	1.568	2	.089	7	.262	7	5.045	2	3.848	7	6.911	7	9.325	2	
570		min	-2.132	7	-.044	2	-.31	2	-3.848	7	-5.045	2	-7.206	2	-8.944	7	
571	58	1	max	.046	2	.064	1	.061	2	0	1	0	1	0	1	0	1
572		min	-.053	7	-.066	6	-.079	7	0	1	0	1	0	1	0	1	
573	2	max	.046	2	.044	7	.07	2	1.177	7	1.112	2	.475	1	.885	6	
574		min	-.053	7	-.047	2	-.07	7	-1.112	2	-1.177	7	-.684	6	-.614	1	
575	3	max	.046	2	.044	7	.079	2	2.264	7	2.314	2	.878	2	1.253	7	
576		min	-.053	7	-.047	2	-.061	7	-2.314	2	-2.264	7	-.969	7	-1.136	2	
577	4	max	.046	2	.052	6	.088	2	3.262	7	3.607	2	1.575	2	1.546	7	
578		min	-.053	7	-.054	1	-.052	7	-3.607	2	-3.262	7	-1.195	7	-2.039	2	
579	5	max	.035	7	.081	1	.977	2	0	1	0	1	0	1	0	1	
580		min	-.037	2	-.05	6	-1.402	7	0	1	0	1	0	1	0	1	
581	59	1	max	.047	1	.054	1	.072	6	0	1	0	1	0	1	0	1
582		min	-.054	6	-.052	6	-.054	1	0	1	0	1	0	1	0	1	
583	2	max	.055	1	.044	1	.063	6	1.062	1	1.136	6	.787	2	.744	7	
584		min	-.061	6	-.043	6	-.063	1	-1.136	6	-1.062	1	-.575	7	-1.018	2	
585	3	max	.063	1	.041	7	.054	6	2.117	1	2.084	6	.841	2	.986	7	
586		min	-.069	6	-.038	2	-.072	1	-2.084	6	-2.117	1	-.762	7	-1.088	2	
587	4	max	.07	1	.07	7	.045	6	3.164	1	2.844	6	1.177	6	2.052	1	
588		min	-.077	6	-.068	2	-.081	1	-2.844	6	-3.164	1	-1.586	1	-1.523	6	
589	5	max	.027	2	.034	1	1.508	2	0	1	0	1	0	1	0	1	
590		min	-.025	1	-.08	7	-1.073	7	0	1	0	1	0	1	0	1	
591	60	1	max	.045	7	.08	7	.066	2	0	1	0	1	0	1	0	1
592		min	-.051	2	-.078	2	-.047	7	0	1	0	1	0	1	0	1	
593	2	max	.053	7	.05	7	.056	2	1.15	7	1.232	2	.613	1	.52	6	
594		min	-.058	2	-.049	2	-.056	7	-1.232	2	-1.15	7	-.402	6	-.793	1	
595	3	max	.061	7	.043	6	.047	2	2.098	7	2.082	2	.866	1	1.021	6	
596		min	-.066	2	-.04	1	-.065	7	-2.082	2	-2.098	7	-.789	6	-1.121	1	
597	4	max	.068	7	.053	6	.038	2	2.869	6	2.548	2	1.013	2	1.86	7	
598		min	-.074	2	-.05	1	-.074	7	-2.548	2	-2.869	6	-1.437	7	-1.311	2	
599	5	max	.033	1	.053	7	1.489	1	0	1	0	6	0	6	0	1	
600		min	-.034	6	-.066	2	-1.081	6	0	6	0	1	0	1	0	6	
601	61	1	max	0	1	0	2	0	6	0	1	0	1	0	1	0	1
602		min	0	1	0	7	0	3	0	1	0	1	0	1	0	1	
603	2	max	.019	9	.036	2	.036	6	.338	2	.338	7	.338	6	.338	1	



Company :
 Designer :
 Job Number :
 Model Name :

Mar 9, 2017

Checked By: _____

Envelope Member Section Stresses (Continued)

Member	Sec		Axial[ksi]	LC y	Shear[...]	LC z	Shear[...]	LC y-Top[ksi]	LC y-Bot[ksi]	LC z-Top[ksi]	LC z-Bot[ksi]	LC				
604		min	.007	2	-.036	7	-.036	1	-.338	7	-.338	2	-.338	1	-.338	6
605		max	.667	1	.098	7	.051	1	1.446	2	1.21	7	.898	6	.814	1
606		min	-.968	6	-.119	2	-.057	6	-1.21	7	-1.446	2	-.814	1	-.898	6
607		max	.674	1	.063	7	.015	1	.311	7	.462	2	.163	6	.193	1
608		min	-.961	6	-.083	2	-.021	6	-.462	2	-.311	7	-.193	1	-.163	6
609		max	0	1	0	7	0	1	0	1	0	1	0	1	0	1
610		min	0	1	0	2	0	6	0	1	0	1	0	1	0	1
611	62	max	0	1	0	2	0	6	0	1	0	1	0	1	0	1
612		min	0	1	0	7	0	1	0	1	0	1	0	1	0	1
613		max	.019	4	.036	2	.036	6	.338	2	.338	7	.338	6	.338	1
614		min	.007	1	-.036	7	-.036	1	-.338	7	-.338	2	-.338	1	-.338	6
615		max	.709	7	.03	7	.121	1	.38	2	.424	7	1.291	6	1.546	1
616		min	-.998	2	-.025	2	-.1	6	-.424	7	-.38	2	-1.546	1	-1.291	6
617		max	.715	7	.024	1	.086	1	.273	1	.219	6	.408	1	.256	6
618		min	-.992	2	-.019	6	-.064	6	-.219	6	-.273	1	-.256	6	-.408	1
619		max	0	1	0	7	0	1	0	1	0	1	0	1	0	1
620		min	0	1	0	2	0	6	0	1	0	1	0	1	0	1
621	63	max	0	1	0	2	0	8	0	1	0	1	0	1	0	1
622		min	0	1	0	7	0	1	0	1	0	1	0	1	0	1
623		max	.019	4	.036	2	.036	6	.338	2	.338	7	.338	6	.338	1
624		min	.007	7	-.036	7	-.036	1	-.338	7	-.338	2	-.338	1	-.338	6
625		max	.263	2	.103	7	.048	1	1.053	2	1.463	7	.877	7	.603	2
626		min	-.633	7	-.074	2	-.074	6	-1.463	7	-1.053	2	-.603	2	-.877	7
627		max	.27	2	.067	7	.047	2	.304	6	.169	1	.285	2	.498	7
628		min	-.627	7	-.038	2	-.073	7	-.169	1	-.304	6	-.498	7	-.285	2
629		max	0	2	0	7	0	1	0	1	0	1	0	1	0	1
630		min	0	7	0	2	0	8	0	1	0	1	0	1	0	1



RADIO FREQUENCY EMISSIONS ANALYSIS REPORT EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

AT&T Existing Facility

Site ID: CT2112

Stratford
623 Honeyspot Road
Stratford, CT 06616

February 3, 2017

EBI Project Number: 6217000356

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general public allowable limit:	26.28 %



February 3, 2017

AT&T Mobility – New England
Attn: Cameron Syme, RF Manager
550 Cochituate Road
Suite 550 – 13&14
Framingham, MA 06040

Emissions Analysis for Site: **CT2112 – Stratford**

EBI Consulting was directed to analyze the proposed AT&T facility located at **623 Honeyspot Road, Stratford, CT**, for the purpose of determining whether the emissions from the Proposed AT&T Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 700 and 850 MHz Bands are approximately $467 \mu\text{W}/\text{cm}^2$ and $567 \mu\text{W}/\text{cm}^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 2300 MHz (WCS) bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.



Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed AT&T Wireless antenna facility located at **623 Honeyspot Road, Stratford, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since AT&T is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

- 1) 2 UMTS channels (850 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 2) 2 UMTS channels (1900 MHz (PCS)) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 3) 4 LTE channels (700 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel broadcasting on Antennas 2 & 3 on each sector.
- 4) 2 GSM channels (850 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 5) 2 LTE channels (1900 MHz (PCS)) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 6) 2 LTE channels (2300 MHz (WCS)) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.



- 7) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 8) For the following calculations the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications minus 10 dB was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 9) The antennas used in this modeling are the **Powerwave 7770, KMW AM-X-CD-16-65-00T-RET and the Quintel QS66512-2** for transmission in the 700 MHz, 850 MHz, 1900 MHz (PCS) and 2300 MHz (WCS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 10) The antenna mounting height centerlines of the proposed antennas are **90 feet** above ground level (AGL) for **Sector A**, **90 feet** above ground level (AGL) for **Sector B** and **90 feet** above ground level (AGL) for Sector C.
- 11) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

All calculations were done with respect to uncontrolled / general public threshold limits.



AT&T Site Inventory and Power Data by Antenna

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Powerwave 7770	Make / Model:	Powerwave 7770	Make / Model:	Powerwave 7770
Gain:	11.4 / 13.4 dBd	Gain:	11.4 / 13.4 dBd	Gain:	11.4 / 13.4 dBd
Height (AGL):	90 feet	Height (AGL):	90 feet	Height (AGL):	90 feet
Frequency Bands	850 MHz / 1900 MHz (PCS)	Frequency Bands	850 MHz / 1900 MHz (PCS)	Frequency Bands	850 MHz / 1900 MHz (PCS)
Channel Count	4	Channel Count	4	Channel Count	4
Total TX Power(W):	120 Watts	Total TX Power(W):	120 Watts	Total TX Power(W):	120 Watts
ERP (W):	2,140.89	ERP (W):	2,140.89	ERP (W):	2,140.89
Antenna A1 MPE%	1.41 %	Antenna B1 MPE%	1.41 %	Antenna C1 MPE%	1.41 %
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	KMW AM-X-CD-16-65-00T-RET	Make / Model:	KMW AM-X-CD-16-65-00T-RET	Make / Model:	KMW AM-X-CD-16-65-00T-RET
Gain:	13.35 dBd	Gain:	13.35 dBd	Gain:	13.35 dBd
Height (AGL):	90 feet	Height (AGL):	90 feet	Height (AGL):	90 feet
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz
Channel Count	2	Channel Count	2	Channel Count	2
Total TX Power(W):	120 Watts	Total TX Power(W):	120 Watts	Total TX Power(W):	120 Watts
ERP (W):	2,595.26	ERP (W):	2,595.26	ERP (W):	2,595.26
Antenna A2 MPE%	2.83 %	Antenna B2 MPE%	2.83 %	Antenna C2 MPE%	2.83 %
Antenna #:	3	Antenna #:	3	Antenna #:	3
Make / Model:	Quintel QS66512-2	Make / Model:	Quintel QS66512-2	Make / Model:	Quintel QS66512-2
Gain:	11.35 / 13.85 / 14.85 / 10.85 dBd	Gain:	11.35 / 13.85 / 14.85 / 10.85 dBd	Gain:	11.35 / 13.85 / 14.85 / 10.85 dBd
Height (AGL):	90 feet	Height (AGL):	90 feet	Height (AGL):	90 feet
Frequency Bands	850 MHz / 1900 MHz (PCS) / 2300 MHz (WCS) / 700 MHz	Frequency Bands	850 MHz / 1900 MHz (PCS) / 2300 MHz (WCS) / 700 MHz	Frequency Bands	850 MHz / 1900 MHz (PCS) / 2300 MHz (WCS) / 700 MHz
Channel Count	8	Channel Count	8	Channel Count	8
Total TX Power(W):	420 Watts	Total TX Power(W):	420 Watts	Total TX Power(W):	420 Watts
ERP (W):	8,856.01	ERP (W):	8,856.01	ERP (W):	8,856.01
Antenna A3 MPE%	5.68 %	Antenna B3 MPE%	5.68 %	Antenna C3 MPE%	5.68 %

Site Composite MPE%	
Carrier	MPE%
AT&T – Max per sector	9.92 %
Verizon Wireless	7.25 %
Clearwire	0.43 %
Sprint	0.40 %
Nextel	2.11 %
MetroPCS	1.91 %
Com-tronics	4.26 %
Site Total MPE %:	26.28 %

AT&T Sector A Total:	9.92 %
AT&T Sector B Total:	9.92 %
AT&T Sector C Total:	9.92 %
Site Total:	26.28 %



AT&T Maximum Power Values Per Sector

AT&T _ Frequency Band / Technology Per Sector	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
AT&T 850 MHz UMTS	2	414.12	90	4.22	850 MHz	567	0.74%
AT&T 1900 MHz (PCS) UMTS	2	656.33	90	6.69	1900 MHz (PCS)	1000	0.67%
AT&T 700 MHz LTE (Antenna 2)	2	1,297.63	90	13.22	700 MHz	467	2.83%
AT&T 850 MHz GSM	2	409.37	90	4.17	850 MHz	567	0.74%
AT&T 1900 MHz (PCS) LTE	2	1,455.97	90	14.84	1900 MHz (PCS)	1000	1.48%
AT&T 2300 MHz (WCS) LTE	2	1,832.95	90	18.68	2300 MHz (WCS)	1000	1.87%
AT&T 700 MHz LTE (Antenna 3)	2	729.71	90	7.44	700 MHz	467	1.59%
						Total:	9.92%



Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general public exposure to RF Emissions.

The anticipated maximum composite contributions from the AT&T facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general public exposure to RF Emissions are shown here:

AT&T Sector	Power Density Value (%)
Sector A:	9.92 %
Sector B:	9.92 %
Sector C:	9.92 %
AT&T Maximum Total (per sector):	9.92 %
Site Total:	26.28 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **26.28 %** of the allowable FCC established general public limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

GROUNDING NOTES:

- THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LP, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GESS) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS. TESTS SHALL BE PERFORMED IN ACCORDANCE WITH IEEE 1100 AND 81. TESTS SHALL BE PERFORMED AT THE GROUND RODS FOR CELL SITES.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION SHALL BE USED IN CONDUIT AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND CONDUCTORS OF EQUAL OR LARGER FOR INDOOR BTS; 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- APPROVED ANTI-OXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND CONDUCTORS TO THE BRIDGE AND THE TOWER GROUND BAR.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- METAL CONDUIT AND TRAY SHALL BE GROUND AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BONDING ACROSS THE CONDUIT CLAMPS.
- GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS SUCH AS METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
- ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF ANS/TIA 222. FOR TOWERS BEING BUILT TO REV-G OF THE STANDARD, THE SIZE OF THE BURIED GROUND RING AND CONNECTIONS BETWEEN THE TOWER AND THE BURIED GROUND RING SHALL BE CHANGED FROM 2 AWG TO 20 AWG. ABOVE GROUND THE MINIMUM LENGTH OF THE GROUND RODS SHALL BE INCREASED FROM EIGHT FEET (8') TO TEN FEET (10').
- ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE 3/4" OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID THINNED COPPER GROUND WIRE, PER NEC 250.30.

GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
 SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)
 OWNER - AT&T MOBILITY
 OEM - ORIGINAL EQUIPMENT MANUFACTURER
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR (EMPIRE TELECOM).
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES, ORDINANCES, RULES, REGULATIONS, AND APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL NOTICES OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
- SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TIE/CO PLAN DRAWINGS. THE SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR. REASONING OF TRENCHING SHALL BE APPROVED BY CONTRACTOR
- THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OFF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
- ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS UNLESS OTHERWISE SPECIFIED. ALL CONCRETING WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
- ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy=36 ksi). ALL STRUCTURAL STEEL SHALL BE GALVANNEAL (GALVALUME) OR GALVALUME WITH ZINC RICH PAINT.
- CONSTRUCTION SHALL COMPLY WITH SPECIFICATION 25741-000-3AFS-400Z-00002, "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T MOBILITY SITES."
- SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK MAY NEED TO BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

- SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES, ORDINANCES, RULES, REGULATIONS, AND LAWFUL NOTICES OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:
 - AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
 - AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, THIRTEENTH EDITION
 - AMERICAN SOCIETY OF TESTING OF MATERIALS, ASTM
 - TELECOMMUNICATIONS INDUSTRY ASSOCIATION (ANSI/TIA-222-G-1), STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES;
 - TIA 607-COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS
 - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, OSHA
 - INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE AND EARTH SURFACE POTENTIALS OF A GROUND GROUNDING OF ELECTRONIC EQUIPMENT
 - TELCORDIA GR-1503, COAXIAL CABLE CONNECTIONS
- FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.
- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES AND EXISTING CONDITIONS AT THE SITE PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA AND SUBMIT TO THE ENGINEER ANY DISCREPANCIES FROM THE DRAWINGS.
- INFORMATION SHOWN ON THIS SET OF PLANS TAKEN FROM DRAWINGS PREPARED BY HUDSON DESIGN GROUP LLC FOR A RECENT UPGRADING OF THIS CONTRACTOR TO NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.



116 ROUTE 46
 MOUNTAIN LAKES, NJ 07946
 TEL: 908.259.4000
 FAX: 908.259.4307



BILLERICA, MA 01821

SITE NAME: STRATFORD
 623 HONEYCOT ROAD
 STRATFORD, CT 06615
 FAIRFIELD COUNTY



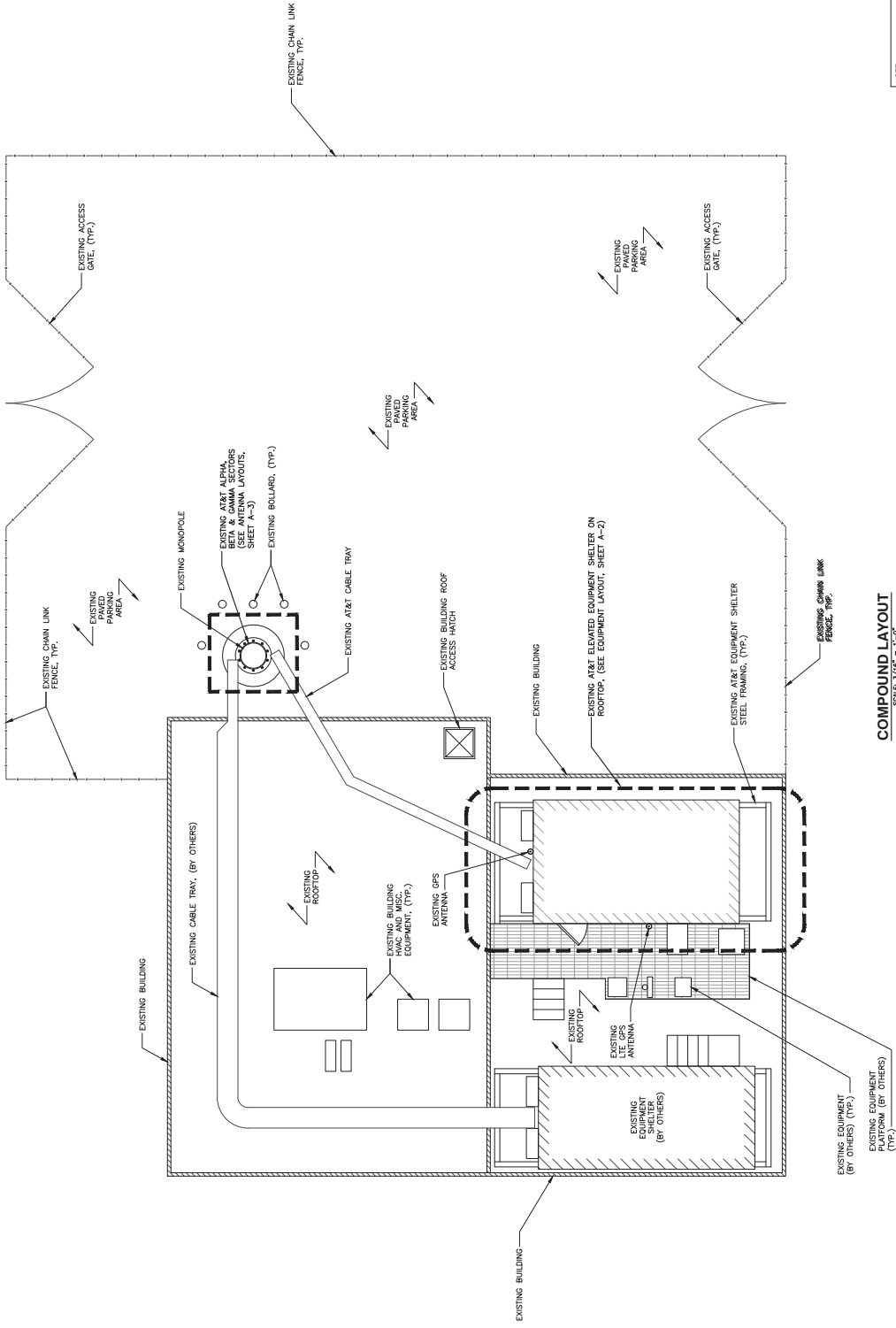
550 COCHITUA ROAD
 FRAMINGHAM, MA 01701

NO.	DATE	ISSUED AS FINAL REVISIONS	ACD	INDS	INDR	BT	CHK	PRD	DRWNR	BR	TB
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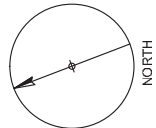
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JOB NUMBER: 16070-EMP	DRAWING NUMBER: GN-1
BOB 0	

AT&T

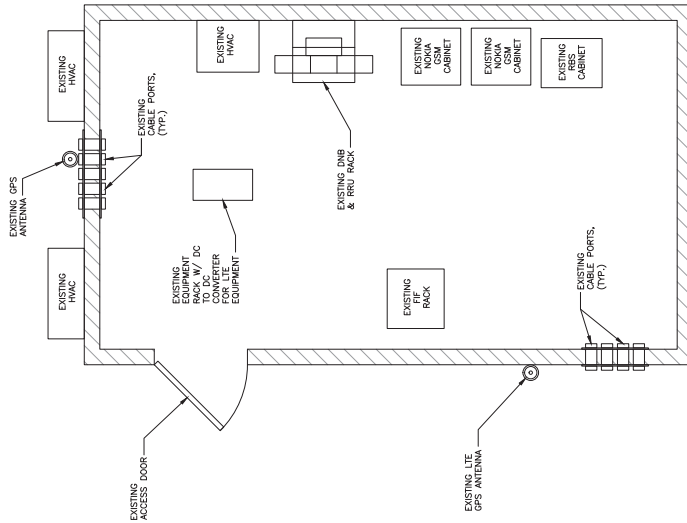


COMPOUND LAYOUT
 SCALE: 3/16" = 1'-0"
 1" = 1'-0"
 2" = 2'-0"
 3" = 3'-0"
 GRAPHIC SCALE: 3/16" = 1'-0"

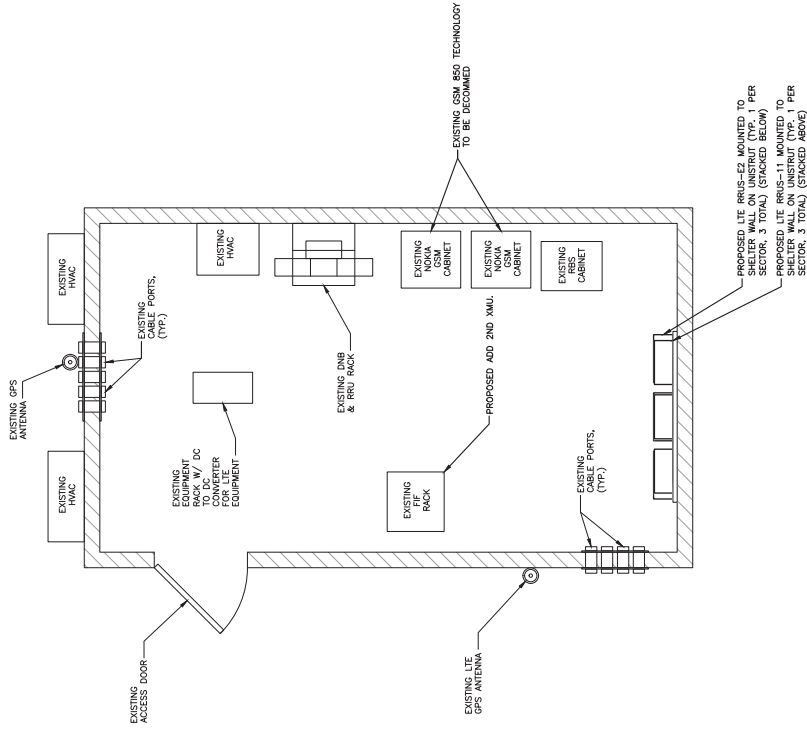
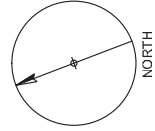
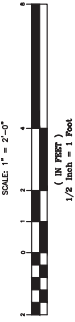
NOTE: CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES BETWEEN THE CONTRACT AREA AND SUBMIT TO THE ENGINEER ANY DISCREPANCIES FROM THE DRAWINGS.



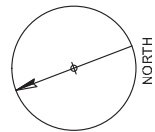
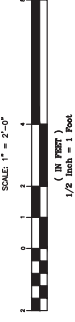
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NO.	DATE	REVISIONS	BT LCHK (RFD)
SCALE: AS SHOWN	DESIGNED BY: NUM	DRAWN BY: TB	DRAWING NUMBER: A-1
COM-EX Consultants 115 ROUTE 46 MOUNTAIN LAKES, NJ 07046 PHONE: 908-261-7000 FAX: 908-261-4301		EMPIRE telecom 16 ESQUIRE ROAD BILLERICA, MA 01821	
SITE NUMBER: CTU2112 SITE NAME: STRATFORD 623 HONEYSPOT ROAD STRATFORD, CT 06615 FAIRFIELD COUNTY		at&t MOBILITY 550 COCHITATE ROAD FRAMINGHAM, MA 01701	
AT&T DRAWING TITLE: COMPOUND LAYOUT JOB NUMBER: 16070-EMP DRAWING NUMBER: A-1			



EXISTING EQUIPMENT LAYOUT



PROPOSED EQUIPMENT LAYOUT



COM-EX
Consultants
115 ROUTE 46
MOUNTAIN LAKE, NJ 07046
PHONE: 908-229-4300
FAX: 908-229-4301

EMPIRE
telecom
16 ESQUIRE ROAD
BILLERICA, MA 01821

SITE NUMBER: CTU2112
SITE NAME: STRATFORD
623 HONEYSPOT ROAD
STRAFORD, CT 06615
FAIRFIELD COUNTY

at&t
MOBILITY
550 COCHITATE ROAD
FRAMINGHAM, MA 01701

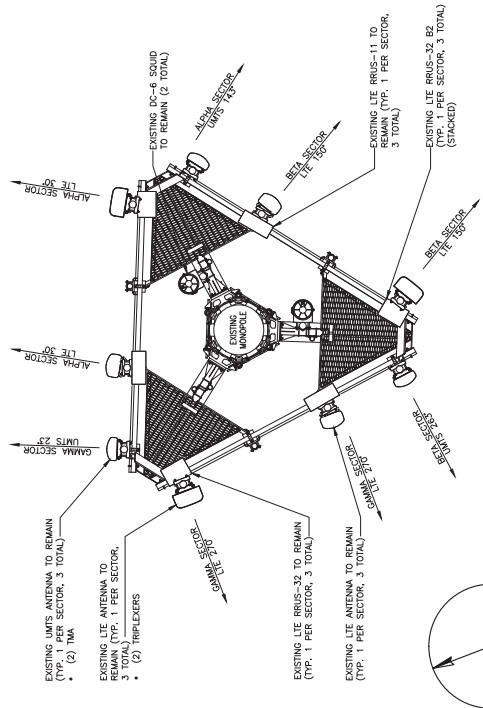
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D	07/16/17						

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DESIGNED BY: NUM
DRAWN BY: TB



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JOB NUMBER	16070-EMP	DRAWING NUMBER	A-2
REV			0

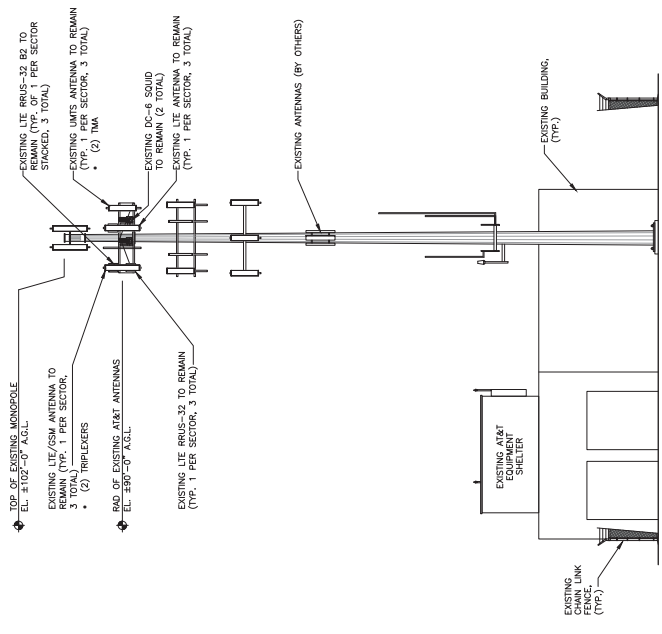
PROJECT OWNER IS RESPONSIBLE FOR PROVIDING A STRUCTURAL STABILITY ANALYSIS TO THE ENGINEER. THE ENGINEER SHALL REVIEW THE ANALYSIS AND VERIFY THAT THE STRUCTURE TO SAFELY CARRY ALL ADDITIONAL LOADS IMPOSED BY THE PROPOSED EQUIPMENT AS SHOWN HEREIN. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR INCORPORATING ANY REQUIRED STRUCTURAL MODIFICATIONS INTO THEIR SCOPE OF WORK.



EXISTING ANTENNA LAYOUT
SCALE: N=1/8"

NO NEW WORK PROPOSED

PROPOSED ANTENNA LAYOUT
SCALE: N=1/8"



EXISTING TOWER ELEVATION
SCALE: N=1/8"

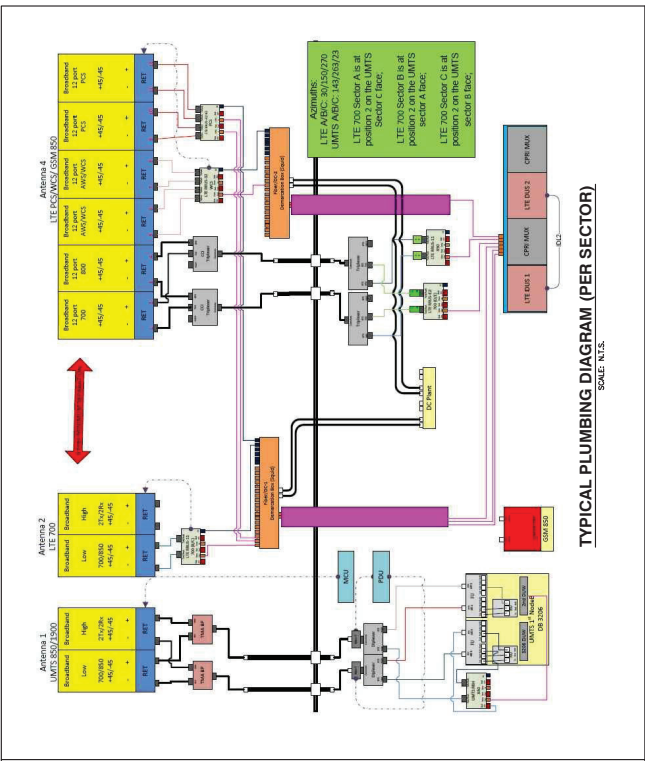
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REVISIONS	BT	CHK	PRD
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550 COCHITUA ROAD
FRAMINGHAM, MA 01701

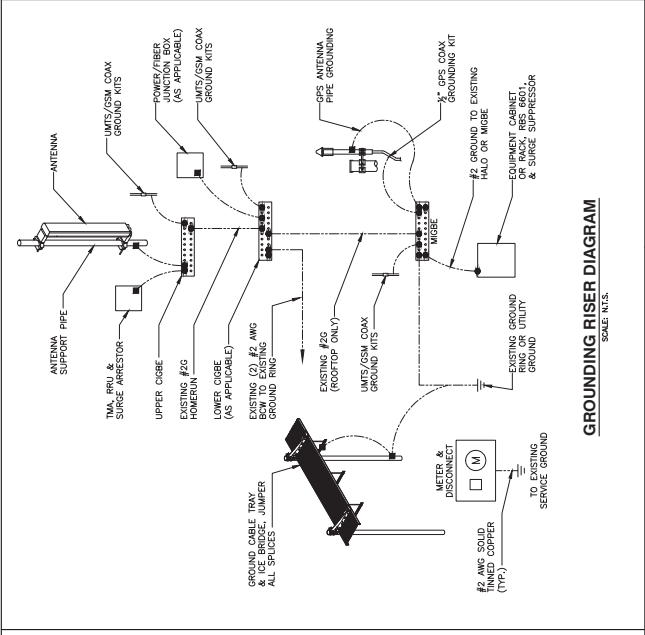
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SITE NAME: STRATFORD
623 HONEYSPOT ROAD
STRATFORD, CT 06615
FAIRFIELD COUNTY

16 ESQUIRE ROAD
BILLERICA, MA 01821

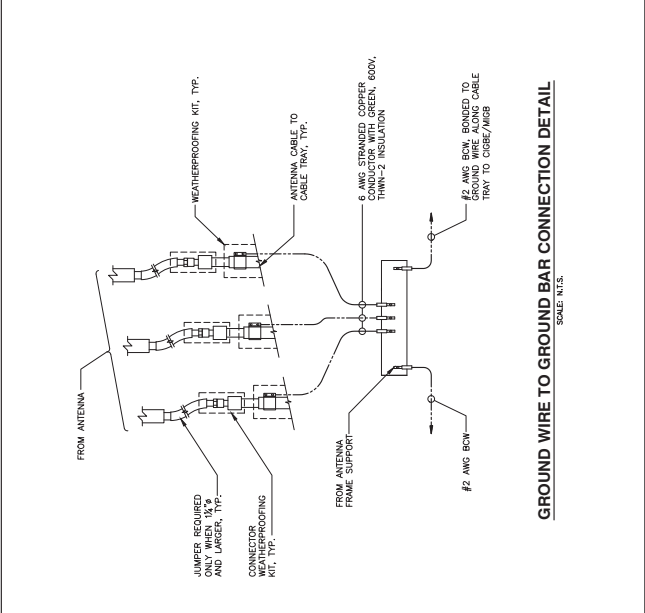
116 ROUTE 46
MOUNTAIN LAKE, NJ 07046
TEL: 908.259.4300
FAX: 908.259.4301



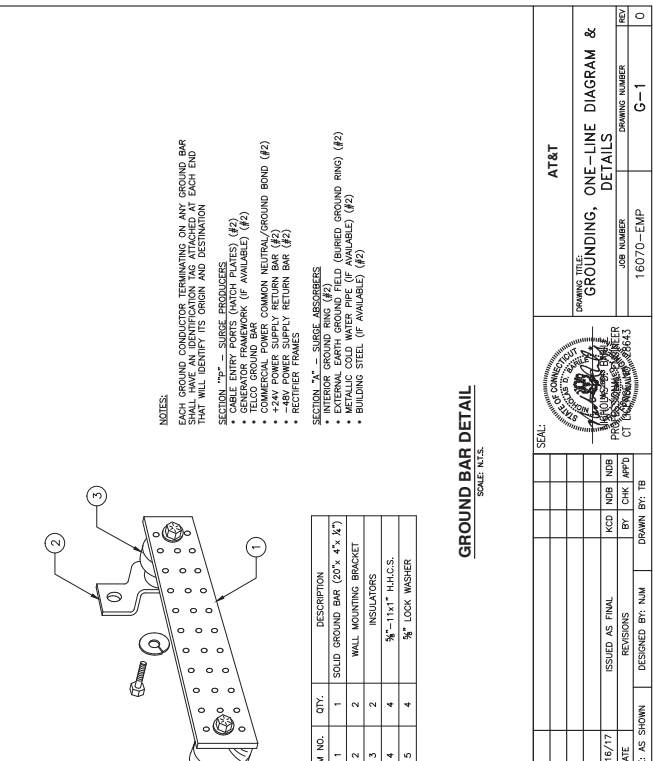
TYPICAL PLUMBING DIAGRAM (PER SECTOR)
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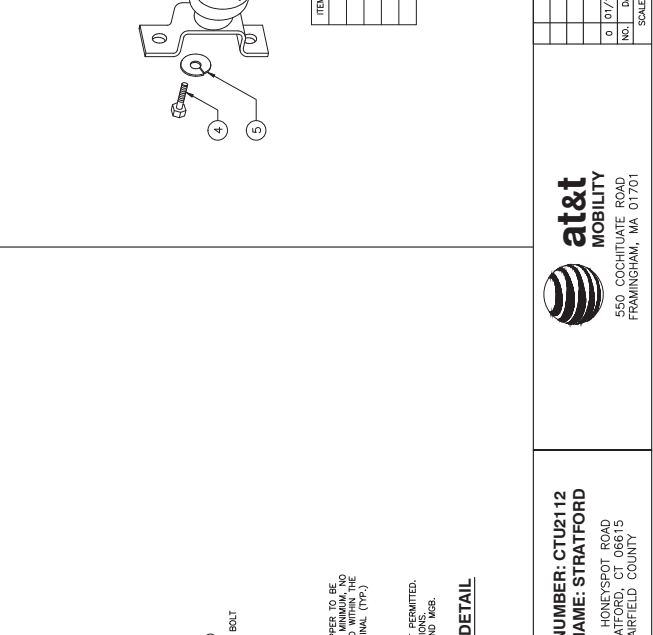
GROUNDING RISER DIAGRAM
SCALE: N.T.S.



GROUND WIRE TO GROUND BAR CONNECTION DETAIL
SCALE: N.T.S.



GROUND BAR DETAIL
SCALE: N.T.S.



TYPICAL GROUND BAR CONNECTION DETAIL
SCALE: N.T.S.

AT&T

DRIVING TITLE: GROUNDING, ONE-LINE DIAGRAM & DETAILS

JOB NUMBER: 16070-EMP

DRAWING NUMBER: G-1

REV: 0

SCALE: AS SHOWN

DESIGNED BY: NUM

DRAWN BY: TB

NO.: 0

DATE: 07/16/17

ISSUED AS FINAL

REVISIONS:

BT LCHK (RFD)

PPR (RFD)

CT (RFD)

CT (RFD)



SITE NUMBER: CTU2112
SITE NAME: STRATFORD
623 HONEYSPOT ROAD
STRATFORD, CT 06615
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